

# **Environmental Compliance Inspection Checklist for Shipbuilding Facilities**

**U.S. DEPARTMENT OF TRANSPORTATION  
Maritime Administration and the U.S. Navy**

in cooperation with

**National Steel and Shipbuilding Company  
San Diego, California**

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE <b>APR 1992</b>		2. REPORT TYPE <b>N/A</b>		3. DATES COVERED <b>-</b>	
4. TITLE AND SUBTITLE <b>Environmental Compliance Inspection Checklist for Shipbuilding Facilities</b>				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>Naval Surface Warfare Center CD Code 2230-Design Integration Tools Bldg 192, Room 128 9500 MacArthur Blvd, Bethesda, MD 20817-5700</b>				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release, distribution unlimited</b>					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT <b>SAR</b>	18. NUMBER OF PAGES <b>131</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			

### DISCLAIMER

These reports were prepared as an account of government-sponsored work. Neither the United States, nor the United States Navy, nor any person acting on behalf of the United States Navy (A) makes any warranty or representation, expressed or implied, with respect to the accuracy, completeness or usefulness of the information contained in this report/manual, or that the use of any information, apparatus, method, or process disclosed in this report may not infringe privately owned rights; or (B) assumes any liabilities with respect to the use of or for damages resulting from the use of any information, apparatus, method, or process disclosed in the report. As used in the above, "Persons acting on behalf of the United States Navy" includes any employee, contractor, or subcontractor to the contractor of the United States Navy to the extent that such employee, contractor, or subcontractor to the contractor prepares, handles, or distributes, or provides access to any Information pursuant to his employment or contract or subcontract to the contractor with the United State Navy. ANY POSSIBLE IMPLIED WARRANTIES OF MERCHANTABILITY AND/OR FITNESS FOR PURPOSE ARE SPECIFICALLY DISCLAIMED.

# ENVIRONMENTAL COMPLIANCE INSPECTION CHECKLIST FOR SHIPBUILDING FACILITIES

April, 1992

prepared and submitted by:

National steel and Shipbuilding Co.  
San Diego, California

# TABLE OF CONTENTS

TABLES .....	iii
FOREWORD .....	iv
INTRODUCTION .....	v
OBJECTIVES .....	vi
PROJECT OVERVIEW .....	vi
1. AIR CHECKLIST .....	1
1.1 Stationary Air Pollution Emission Sources .....	2
1.2 Emissions of Hazardous Air Pollutants .....	4
1.3 New Source Performance Standards .....	4
1.4 Enforcement .....	8
1.5 Asbestos Checklist .....	14
2. WATER CHECKLIST .....	18
2.1 Surface Water .....	20
2.2 Wetlands&Marine Protection. ....	22
2.3 Compliance .....	23
3. HAZARDOUSWASTES .....	26
3.1 Hazardous Wastes .....	28
3.2 RCRA Contingency Plans .....	36
4. TANKS .....	41
4.1 Aboveground StorageTanks .....	42
4.2 Underground Storage Tanks (UST's) .....	42
4.3 Hazardous Waste Storage Tanks.. ....	45
4.4 Spill Prevention Plans.. ....	47
5. EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW .....	51
5.1 Emergency Planning and Community Right-To-Know .....	52
5.2 Emergency Release Notification. ....	54
6. MEDICAL WASTES .....	56
6.1 Medical Waste Management .....	57
7. PCBs .....	62
7.1 PCB Management .....	63

8.	PESTICIDES .....	68
8.1	Pesticides Management .....	69
9.	WASTE MINIMIZATION .....	72
9.1	Hazardous Material Storage and Handling .....	73
9.2	Waste Generating Activities .....	76
9.3	Waste Storage and Handling Practices .....	79
9.4	Waste Management Practices.. .....	81
9.5	Waste Reduction Program .....	82
9.6	Waste Reduction Opportunities .....	84
10.	PROPERTY TRANSFERS .....	88
10.1	Environmental Cleanup Responsibilities .....	89
10.2	Pre-Acquisition Assessments. ....	89
10.3	On-Site Inspection .....	90
10.4	Sampling and Analysis .....	91
10.5	Final Report .....	91
11.	REFERENCES .....	93
12.	DEFINITION OF TERMS AND ACRONYMS .....	94

## APPENDICES

APPENDIX A	Comprehensive Transporter and TSDF Audit .....	96
APPENDIX A-1:	Transporter Audit .....	97
APPENDIX A-2	Treatment Storage and Disposal Facility Audit .....	106

## TABLES

Table 1-1	Stationary Air Pollutant Sources . . . . .	9
Table 1-2	Regulated Pollutants and Emission Standards . . . . .	10
Table 1-3	Noncompliance Record . . . . .	11
Table 1-4	Proposed Corrective Actions. . . . .	12
Table 1-5	New Source Performance Standards . . . . .	13
Table 2-1	List of Permits . . . . .	24
Table 2-2	Notices of Non-Compliance/Violations . . . . .	25
Table 3-1	Hazardous Waste Generating Activities . . . . .	38
Table 3-2	Hazardous Waste Storage Areas . . . . .	39
Table 3-3	Satellite Storage Areas . . . . .	40
Table 4-1	Aboveground Storage Tank..... . . . .	49
Table 4-2	Underground Storage Tanks . . . . .	50
Table 5-1	Hazardous Substance Inventory. . . . .	55

## **FOREWORD**

The environmental compliance inspection checklist was produced for the National Shipbuilding Research Program (NSRP) as a cooperative cost shared effort between the U.S. Navy and National Steel and Shipbuilding Company (NASSCO). The Facilities and Environmental Effects Panel (SP-1) of the Society of Naval Architects and Marine Engineers (SNAME) Ship Production Committee sponsored the project under the technical direction of Lyn Haumschilt of NASSCO, NSRP Program Manager.

The environmental checklist was prepared by NASSCO with John Martin acting as Project Manager. John Wittenborn, partner with the law firm Collier, Shannon and Scott of Washington, D.C., acted as project legal consultant and provided invaluable legal expertise as well as co-authoring this checklist.

We wish to thank the following shipyards and their representatives for reviewing and providing comments on the final checklist

Dana Austin and Tim Sturdavant of Southwest Marine Inc.  
George Curtis of Norfolk Shipbuilding Company.  
Fran Cohen of U.S. Coast Guard Yard  
CW02 Mark Purvis of NAVSEA 07I&E



## INTRODUCTION

This booklet is designed to assist shipyard owners and operators in complying with the numerous federal environmental regulations to which they are subject. The enclosed checklists are to be used by shipyards to monitor compliance with requirements in the areas of

- Air
- Water
- Hazardous waste
- Tanks
- Community-right-to-know
- Medical waste
- PCB management
- Pesticides
- Waste minimization
- Property transfers

In a time when there are more environmental regulations than ever before and increasing liability for environmental violations, it is important for shipyards to develop a comprehensive environmental management program. In today's regulatory climate, what you don't know can hurt you. A strong environmental management program consists of several elements, including a company structure that reflects the company's understanding of the importance of environmental matters, company-wide commitment to environmental compliance, regular internal environmental audits, and company preparedness to address environmental violations. The enclosed checklists provide a useful tool in the development of such a program. Not only will the checklists assist shipyards in assessing environmental compliance, but use of the checklists demonstrates to the public and regulatory agencies that the yard is committed to properly managing environmental matters. In addition, the checklists provide an excellent training tool for shipyard employees that are new to the environmental regulatory area.

The checklists were designed by shipyard environmental engineers and attorneys who are familiar with both shipyard operations and all of the applicable environmental regulations. The checklists do not contain complex legal language that is often pervasive in environmental regulations. Rather, the checklists are drafted in a straightforward and easy to understand manner targeted to the specific shipyard operation that the requirement is seeking to regulate. Generally, the checklists ask "yes" or "no" questions and provide areas for comment or other relevant information. While the checklists are designed to assist shipyards in determining the yard's compliance with environmental regulations, use of the checklists will not assure compliance with all environmental regulations. The checklists' primary focus are on compliance with federal regulations. Where appropriate, however, the checklists indicate when it is necessary for the auditor to consult relevant state regulations. Thus, the checklists are meant to serve as guidelines that highlight the compliance issue and direct the auditor to the appropriate regulation if the auditor desires more information. As a result of this structure, shipyards are encouraged to tailor the checklists to meet their unique operational needs. Because audit reports that document potential compliance problems can become a two-edged sword, shipyards must wisely use the information obtained and be prepared to address and resolve areas of concern.

The remainder of this booklet contains the checklists, which are divided into 10 compliance areas.

## OBJECTIVES

The principle objective of this project is to produce a detailed environmental compliance checklist that can be used by all shipyards to determine their level of compliance with federal laws and regulations. The checklist addresses the full range of processes and operations found in the shipyard industry and the federal environmental regulations that apply. The checklist is organized so that both the regulatory requirements and the locations of

the citations within the regulations are identified. Because state and local environmental requirements differ from location to location, these regulations were not included in this checklist and should be reviewed by the auditor for his or her location. A particular goal of this project was to develop an environmental checklist that could be easily used by both trained and first time auditors in the shipyard.

## PROJECT OVERVIEW

This checklist was developed to assist shipyards in determining their level of environmental compliance with federal regulatory requirements. The checklist addresses the full range of processes and operations found in the shipyard industry, and the environmental regulations that apply to them. The checklist was prepared using current available environmental checklists and published literature sources on environmental auditing. A draft checklist was reviewed by various representative shipyards to assure that all shipyard processes were covered. The law firm of Collier Shannon & Scott coordinated with NASSCO in researching and reviewing the pertinent federal environmental regulations that apply to the various processes identified at shipyards.

The development phases of the checklist are summarized below

1. Research and amass existing environmental compliance checklists and publications on environmental auditing by both NASSCO and the legal firm of Collier, Shannon & Scott of Washington D.C..

- Develop a draft checklist using the

collected checklists and other publications.

- Survey shipyards to identify any unique process or other unusual operation that should be included in the checklist.
- Draft checklist to be reviewed by Collier, Shannon and Scott and appropriate recommendations made to NASSCO on content and format.
- Both private and public shipyards to review the draft checklist for content to assure that the full range of shipyard processes and permit requirements are incorporated in the final checklist.
- Develop a final checklist and review for completeness and accuracy.

Also, visits were made to the following shipyards to review the draft checklist and discuss improvements

Southwest Marine Inc  
of San Diego, California  
Norfolk Shipbuilding Company  
of Norfolk, Virginia  
U.S. Coast Guard Yard  
of Baltimore, Maryland

## 1.0 AIR CHECKLIST

The primary regulatory focus for this checklist is the Clean Air Act (CAA) which was enacted in 1970 and amended in 1977 and 1990. This checklist will address the following air requirements:

- Stationary Air Pollutant Emission Sources,
- Indirect Emission Sources, and
- National Emission Standards for Hazardous Air Pollutants (“NESHAPS”).

Both EPA and the States have responsibility for implementing the Clean Air Act. EPA is responsible for establishing general standards for National Ambient Air Quality Standards (NAAQS) and for developing several nationally based emission standards, including New Source Performance Standards (NSPS) for major sources that contribute significantly to air pollution; prescribing general source controls (Best Available Control Technology (BACT)) preventing significant deterioration in areas where NAAQS are met; setting special technology-based requirements, including Reasonably Available Control Technology (RACT) and Lowest Achievable Emission Rate (LAER) for sources located in areas where the air is worse than NAAQS; and establishing National Emissions Standards for Hazardous Air Pollutants (NESHAPS). The States must implement EPA’s standards through State Implementation Plans (SIPs) and permits. As a result of the 1990 Clean Air Act Amendments, existing Federal and State air regulations will change significantly in the future.

Because the SIP is the primary Clean Air Act implementation tool, users of this checklist should review their State’s SIP carefully. In addition, users of this checklist should check the local and State regulations which may affect the yard.

### Records to Review

- State and local air pollution control regulations,
- Emissions inventory,
- All air pollution source permits,
- Plans and procedures applicable to air pollution control,
- Emission monitoring records,
- Instrument calibration and maintenance records,
- Opacity records,
- Notifications of violation (NOVs),
- Reports/complaints concerning air quality
- Reports of State and/or Federal regulatory inspections, and
- Plans for future activities (related to emission sources).

### Inspection Areas

- Dry docks, shipways and other outdoor areas where painting and blasting operations may occur,
- Petroleum storage tanks,
  - Construction areas where fugitive emissions may be released,
- Manufacturing locations from which pollutants are released to the atmosphere,
- Air pollution monitoring and control devices, and
- Air emission stacks.

### People to Interview

- Operator(s) of sources,
- Monitoring and sampling personnel,
  - Maintenance personnel,
- Individual(s) responsible for maintaining records and complying with permit requirements, and
- Corporate officer in charge of Environmental Affairs.

ITEM	YES	NO	COMMENTS
<p>1.1 STATIONARY AIR POLLUTION EMISSION SOURCES</p> <p>1.1.1 Are there any smoke stacks, stationary emission sources, or air pollution control systems (e.g. demisters, dust cyclones, scrubbers, air filters, electrostatic precipitators, bag houses or incinerators) within the jurisdiction of the yard? If the answer is "YES": proceed to the next question. If the answer to this question is "NO," proceed to Section 1.2, Emission of Hazardous Air Pollutants. (Particular regulatory information may be found in 40 CFR Parts 50,51,52,57, 60 and 61).</p>			
<p>1.1.2 Is the yard in an attainment or non-attainment area as designated in the SIP?</p>			
<p>1.1.3 Use the attached Table 1-1 to list all emission sources. These may include emissions of NAAQS (40 CFR Part 50) pollutants (e.g. total suspended particles less than 10 microns in size (PM-10), sulfur dioxide, carbon monoxide, NOx, and lead), emission of volatile organic compounds from solvents and coatings, fuel storage or sources of toxic emissions under the NESHAPS program (40 CFR Part 61)).</p> <p>Additional NESHAPS information is requested in Section 1.2, Emission of Hazardous Air Pollutants. Have minor sources been evaluated (e.g. laboratory vents, petroleum storage facilities and diesel electric generators)?</p>			

Stationary Air Pollution Emission Sources -p. 1

ITEM	YES	NO	COMMENTS
1.1.4 Which of these emission sources are major sources as defined in the SIP?			
1.1.5 Have any permits for emissions (Federal, State or local) applicable to the above stationary sources been issued to the yard?			
1.1.6 If the answer to question 1.1.5 is "YES," which air pollutants are regulated and what are their emission standards? List them in Table 1-2.			
1.1.7 Are any self-monitoring and self-reporting requirements specified in the permits identified in question 1.1.5.			
1.1.8 Has the yard been conducting the required self monitoring and self-reporting?			
1.1.9 Has the yard kept self-monitoring records as required?			
1.1.10 Has the yard modified its operations in the last five (5) years?			
1.1.11 If "YES," have the modifications resulted in a cumulative increase in emissions that exceed the major source threshold?			
1.1.12 Is the yard contemplating any (further) modifications to its operations?			
1.1.13 If "YES" will these modifications either increase or decrease emissions?			
1.1.14 If there will be an increase in emissions, will this trigger a new source review or permitting change?			

ITEM	YES	NO	COMMENTS
1.1.15 If there will be a decrease in emissions, is there a mechanism established to bank emission credits?			
<p>1.2 EMISSIONS OF HAZARDOUS AIR POLLUTANTS</p> <p>1.2.1 EPA has set emission standards for the following hazardous pollutants emitted from specific sources: arsenic, asbestos, beryllium, mercury, radionuclides, and vinyl chloride. Except for regulated sources that emit asbestos, shipyards do not emit these hazardous pollutants from any of the regulated sources. However, several states have toxic air pollutant programs in place. Therefore, it is recommended that the state requirements be reviewed for identification of regulated pollutants, permissible emissions limits, if any and other compliance issues. (Refer to 40 CFR Part 61 for additional information) (see the Asbestos Checklist for requirements regarding the national emission standards for asbestos demolition and renovation),</p>			
<p>1.3 NEW SOURCE PERFORMANCE STANDARDS</p> <p>1.3.1 Are there any boilers that were constructed after June 9, 1989 and that have a maximum design heat input capacity of 100 million Btu/hour or less, but greater than or equal to 10 million Btu/hour? If "YES," list them on Table 1-5 and then proceed to next question, If "NO," proceed to question 1.3.5,</p>			

Stationary Air Pollution Emission Sources - p. 3  
Emissions of Hazardous Air Pollutants  
New Source Performance Standards - p. 1

ITEM	YES	NO	COMMENTS
1.3.2 Do these “small” boilers meet emissions standards for sulfur dioxide and particulate matter (40 CFR 60.42(c) and 60.43(c))?			
1.3.3 Does the yard conduct continuous monitoring for measuring pollutants from these boilers? If “YES,” which pollutants are measured (i.e. either oxygen or carbon dioxide, opacity, sulfur dioxide, and either oxygen or carbon dioxide)?			
1.3.4 Has the yard kept self-reporting records for the “small” boilers as required?			
1.3.5 Are there any boilers that were constructed after June 19,1984 that have a heat input capacity greater than 100 million Btu/hour? If the answer to this question is "YES," list them on Table 1-5 and proceed to the next question. If “NO,” proceed to question 1.3.12.			
1.3.6 Do these boilers meet the emission standards for particulate matter, sulfur dioxide, and nitrogen oxide set forth in 40 CFR Part 60 Subpart Db?			
<p>1.3.7 If the yard has any coal-fired boilers that were constructed after June 19, 1984 but on or before June 19,1986, and</p> <ul style="list-style-type: none"> <li>•have a heat input capacity between 100 and 250 million Btu/hour, do they meet emission standards for particulate matters and nitrogen oxides in 40 CFR Part 60 Subpart Db? (Note these sources in Table 1-5.)</li> </ul>			

ITEM	YES	NO	COMMENTS
<ul style="list-style-type: none"> <li>• have a heat input capacity greater than 250 million Btu/hour, do they meet emission standards for particulate matter and nitrogen oxides in 40 CFR Part 60 Subpart Db and for sulfur dioxide in Subpart D? (Note these sources in Table 1-5.)</li> </ul>			
<p>1.3.8 If the yard has any oil-fired boilers that were constructed after June 19, 1984 and on or before June 19, 1986, and</p> <ul style="list-style-type: none"> <li>• have a heat input capacity between 100 and 250 million Btu/hour, do they meet emission standards for nitrogen oxides in 40 CFR Part 60 Subpart Db? (Note these sources in Table 1-5.)</li> <li>• have a heat input capacity greater than 250 million Btu/hour, do they meet emission standards for nitrogen oxides in 40 CFR Part 60 Subpart Db and for particulate matter and sulfur dioxide in 40 CFR Part 60 Subpart D? (Note these sources in Table 1-5.)</li> </ul>			
1.3.9 If the yard's boilers are subject to sulfur dioxide and particulate matter emission standards, does the yard conduct continuous monitoring for these emissions and either oxygen or carbon dioxide?			
1.3.10 Has the yard developed and submitted test data to EPA? (40 CFR 60.49b(b)).			
1.3.11 Has the yard kept self-reporting records for boilers constructed after June 19, 1984 as required?			



ITEM	YES	NO	COMMENTS
1.3.12 Are there any fossil-fuel boilers that were constructed after August 17, 1971 and have a heat input rating of 250 million Btu/hour? If the answer to this question is "YES," list these sources in Table 1-5 and proceed to the next two questions. If the answer is "NO," go to question 1.4.1.			
1.3.13 Do these boilers meet the emission standards set forth in 40 CFR Part 60 Subpart D (standards of performance for fossil-fuel-fired steam generators) for particulate matter, sulfur dioxide, and nitrogen oxides?			
1.3.14 Do these fuel boilers operate continuous monitoring for measuring opacity sulfur dioxide, nitrogen oxides, and either oxygen or carbon dioxide (except as provided in 40 CFR Part 60.56(b)) set forth in b 40 CFR Part 60 Subpart D?			
1.3.15 Have all the sources subject to new source performance standards complied with the notification and recordkeeping requirements as applicable? Such requirements include notification to EPA of physical or operational changes at existing facilities that may increase emissions; for sources that must have a continuous monitoring system, submission of a semiannual excess emissions and monitoring systems performance reports; maintenance of a file for at least two years containing continuous monitoring system and performance testing measurements, records of adjustments and maintenance performed on the			

ITEM	YES	NO	COMMENTS
continuous monitoring system; and all other information required by the notification and recordkeeping section (40 CFR 60.7).			
1.4 ENFORCEMENT			
1.4.1 Have there been any Notices of Violation ("NOVs") for noncompliance of the applicable emission standards or regulations at the yard? If the answer is "YES," list the areas of noncompliance on Table 1-3.			
1.4.2 Were any corrective actions taken by the yard in response to the NOV(s)? If the answer to the question is "YES," identify these actions in Table 1-4 and proceed to question 1.4.3. If the answer to this question is "NO," proceed to the section 1.2 Emissions of Hazardous Air Pollutants.			
1.4.3 Did the corrective actions identified in Table 1-4 bring the facility into compliance with its permit?			

**TABLE 1 - 1**  
**STATIONARY AIR POLLUTANT SOURCES**

SOURCE	NATURE AND CHARACTERISTICS

TABLE 1 - 2

REGULATED POLLUTANTS AND EMISSION STANDARDS

PERMIT NO.	PERMITTING AUTHORITY	SOURCE	POLLUTANT	EMISSION STANDARD (units)

**TABLE 1 - 3**  
**NONCOMPLIANCE RECORD**

EMISSION SOURCE	AREAS OF NON-COMPLIANCE

**TABLE 1 - 4**

**PROPOSED CORRECTIVE ACTIONS**

VIOLATION	PROPOSED CORRECTIVE ACTION	TARGET SCHEDULE

**TABLE 1 - 5**

**NEW SOURCE PERFORMANCE STANDARDS**

SOURCE	NSPS CATEGORY	COMMENTS

## 1.5 ASBESTOS CHECKLIST

The Clean Air Act (CAA) requires EPA to establish National Emission Standards for Hazardous Air Pollutants (NESHAPs). In 1971, EPA listed asbestos as a hazardous air pollutant and promulgated emission standards, which were amended for the manufacturing, fabrication, spray application, waste packaging, labeling and disposal of asbestos. The asbestos NESHAP standards were revised by EPA on November 20, 1990.<sup>1</sup> In addition, regulations were promulgated that set standards for asbestos emissions during renovation and demolition projects (40 CFRs 61.145).

The standards applicable to demolition and renovation activities vary depending on the amount of regulated asbestos containing material (RACM) that is present in a ship or facility. An owner or operator of a demolition or renovation activity must comply with all of the notification and emission requirements if the amount of RACM involved is at least 260 linear feet on pipes, at least 160 square feet on other facility/ship components, or at least 35 cubic feet from facility components where the area could not previously be measured. If the amount of RACM is less than the above listed amounts, owners and operators need only comply with the notification requirements. Owners and operators that conduct demolition as a result of a local or State agency order must comply with specifically listed notification and emission requirements.

In addition to the asbestos NESHAPs regulations, shipyard owners and operators must comply with the worker health and safety requirements under the Occupational Safety and Health Act (OSHA) and the asbestos transportation requirements promulgated by the Department of Transportation.

Below is a summary of the applicable requirements for demolition projects involving asbestos:

### Records to Review

- Record of 10 day notification for renovation and/or demolition,
- Records of Waste Shipment Records (WSRs)/manifests including notification,
- Documentation of emergency notification,
- Inspection reports, and
- Training records

### Physical Features to Inspect

- Ceiling and floor tiles, and
- Pipes, spray on, duct work and troweled cementitious insulation and boiler lagging.

### People to Interview

- Engineering or operating personnel responsible for the inspection and reconstruction of yard buildings/structures/equipment,
- Overhaul/Repair Management personnel responsible for inspection and physical work aboard ships,
- Personnel responsible for reporting to EPA, State or local regulatory agencies regarding the "10-day notification period" for the yard building/structures/ships etc.,
- Personnel responsible for identification of asbestos work, and
- Personnel who test and identify the presence of asbestos.

<sup>1</sup>The November 20,1990 Asbestos NESHAP revisions can be found in 55 Fed. Reg. 48414 (Nov. 20, 1990).



ITEM	YES	NO	COMMENTS
1.5 ASBESTOS			
1.5.1 Have inspections for RACM been conducted prior to renovation or demolition work (40 CFR § 61.145)?			
1.5.2 Has the yard given EPA at least 10 days notice before beginning demolition or renovation work (40 CFR § 61.146)?			
1.5.3 Does the notice to EPA contain all of the required information including: <ul style="list-style-type: none"> <li>• Type of operation;</li> <li>• Description and location of the facility/ ship;</li> <li>• Procedure for detecting regulated asbestos containing materials (RACM);</li> <li>• Estimate of amount of RACM to be removed;</li> <li>• Scheduled starting and completion dates of removal;</li> <li>• Description of removal and emission controls;</li> <li>• Name/location of disposal site;</li> <li>• Certification that a trained individual will supervise work;</li> <li>• Procedures to be taken if unexpected RACM is found; and</li> <li>• Name of transporter (40 CFR § 61.145(b))?</li> </ul>			

ITEM	YES	NO	COMMENTS
1.5.4 Is RACM adequately wetted or are authorized alternative emission control methods used before removal (40 CFR § 61.145(c))?			
1.5.5 Has all RACM that could be broken up or dislodged been removed prior to demolition or renovation or does the demolition/renovation meet one of the criteria for exclusion from the demolition/renovations requirements (40 CFR § 61.145(c)(1))?			
1.5.6 Are there records of visible emission monitoring (40 CFR § 61.150(a))?			
1.5.7 Is RACM adequately wetted during handling and transport (40 CFR § 61.150(a)(l))?			
1.5.8 Is RACM properly bagged and sealed in leak-tight containers/wrapping while still wet (40 CFR § 61.150(a)(l)(iii))?			
1.5.9 Are proper labels on containers of RACM (40 CFR § 61.150(a)(l)(iv))?			
1.5.10 Are waste shipment records (WSRs) or manifests provided for all RACMS transported off-site (40 CFR § 61.150(d)(l))?			
1.5.11 Has a copy of the WSR been sent to the disposal site owner/operator (40 CFR § 61.150(d)(2))?			

ITEM	YES	NO	COMMENTS
<p>1.5.12 Are procedures in place to notify</p> <p>(1) the transporter if WSR is not received from disposal site owner/operator within 35 days of date waste was accepted by first transporter (40 CFR § 61.150(d)(3)?</p> <p>(2) local, state or EPA Regional Office if WSR was not received within 45 days of date waste was received by first transporter (40 CFR § 61.150(d)(4)?</p>			
<p>1.5.13 Are vehicles used to transport RACM properly marked during loading, transporting, and unloading (40 CFR § 61.150(c))?</p>			

## 2.0 WATER CHECKLIST

This checklist will address the following “water” related requirements

- Operations involving point source discharges (e.g. pipes, outlets, ditches) to navigable waters;
- Operations involving marine equipment (e.g. boats, vessels, port facilities, drydocks, floating drydocks and buidling ways);
- Discharges to public sewers;
- On-site waste water treatment works or cooling towers with discharges to public sewers or navigable waters;
- Storm water discharges; and
- Construction activities in navigable waters.

The basic framework for the regulations used in this checklist is the Clean Water Act (CWA). The CWA was enacted in 1977 as comprehensive amendments to the Federal Water Pollution Control Act (enacted in 1956 and amended in 1972). The CWA was most recently amended by the Water Quality Act of 1987. The CWA is implemented through the National Pollutant Discharge Elimination System (NPDES) permit program. This program is the key component to control discharges from industrial facilities and publicly owned treatment works (POTWS) to surface waters of the United States. Under the NPDES permit program regulations, EPA may delegate authority to individual States to administer their own permit program in lieu of the Federal program. In the absence of Federal categorical standards for shipyards, CWA discharge limits are often established on the basis of Best Management Practices (BMPs). Discharge permits are required for all “point source” discharges of pollutants into waters of the

United States, including wetlands. Permits may also be required for indirect discharges of pollutants into municipal collection and treatment systems. These discharges are controlled under local or State pretreatment program requirements.

Permits are required from the Corps of Engineers for work in navigable waters and for disposal of dredge or fill material in waters of the United States.

Finally, the CWA contains regulations on oil spill prevention and run off control from oil and hazardous substance storage areas through requirements for Spill Prevention Control and Countermeasure (SPCC) Plans. The provisions of 40 CFR Part 112 establish requirements for the equipment and methods to prevent the discharge, not related to transportation, from “on and of shore facilities that could reasonably be expected to discharge oil to the navigable waters. For a discussion of these requirements see Section 4.0 TANKS.

The following lists several key elements which may assist the auditor in focusing his/her activities.

### Records to Review

- NPDES/SPDES permit, or State licenses (if appropriate),
- NPDES/SPDES permit renewal application (if within six months of the deadline of 180 days before expiration of the existing permits,
- Discharge monitoring reports for the past year,
- Laboratory records and procedures and EPA quality assurance results,
- Monthly operating reports for wastewater treatment facilities,
- Flow monitoring calibration certification and supporting records,
- Corps of Engineers permits,

- Special reports, certification, etc., required by NPDES permit,
- Best Management Practice (BMP) plan,
- Notice of noncompliance,
- Notices of violation (NOVs),
- Local, State or Federal inspection reports,
- Administrative Orders,
- Sewer line and storm drain layout,
- Local sewer ordinances,
- Local sewer use permit,
- Baseline monitoring report,
- Operations and maintenance manual and daily reports,
- Training manual,
- Repair/maintenance records for the wastewater treatment system, and
- Toxic reduction evaluation reports and water quality monitoring reports.

### Physical Features to Inspect

- Outfalls and discharges,
- Building ways and floating drydocks,
- Berths and port facilities,
- Cooling towers,
- Water treatment facility discharges (Oil/Water separators), and
- Aboveground oil storage tanks.

### People to Interview

- Facility manager,
  - Preparer of NPDES/SPDES monthly operating reports,
- Environmental compliance coordinator, and
- Treatment plant operator or wastewater engineer.

I T E M	YES	NO	COMMENTS
<p>2.1 SURFACE WATER</p> <p>2.1.1 Is any wastewater discharged from land-based yard to receiving waters? Direct, point source dischargers are required to obtain NPDES permits under Section 402 of the Clean Water Act and/or possible State discharge permits. The permitting requirement applies to any discharge whether from a pipe, ditch, channel, tunnel or vessel, or other floating craft. Additional regulatory information on NPDES program can be found in 40 CFR Parts 121, 122, 123,124, 125 and 136. List all wastewater discharge permits and expiration dates in Table 2-1 and review them for parameters and monitoring requirements.</p> <ul style="list-style-type: none"> <li>• Does the discharge permit cover dry docks, ships ways, marine railways, etc.?</li> <li>• Does the permit include Best Management Practices ("BMPs")?</li> </ul>			
<p>2.1.2 Are there any ships, tank vessels barges, floating dry docks within the yard? If "YES," proceed to question 2.1.3. If "NO," proceed to question 2.1.4.</p>			
<p>2.1.3 Does the yard have operations which fall under the requirements of 33 CFR Parts 151, 153, 154, 155, 156, 158, and 159? These regulations cover: the discharge of oils or noxious liquids from vessels and port facilities; the transfer of oil or other hazardous material between vessels and port facilities; and the use of marine sanitation devices.</p>			

Surface Water - p. 1

ITEM	YES	NO	COMMENTS
<p>List the affected operations in the “Comments” section.</p> <ul style="list-style-type: none"> <li>• Does the yard collect and treat wastewaters, oil wastewaters or hazardous materials?</li> <li>• Are such wastewaters discharged pursuant to a permit?</li> <li>• Is the permit current or under renewal?</li> </ul>			
<p>2.1.4 Is wastewater discharged to a municipal system? Discharge requirements for normal sanitary sewage are based on user charges and standards specified by the local sewer authority. If any process (i.e. non-sanitary) wastewater is included, the discharge is regulated according to source-specific pretreatment standards established pursuant to Section 307 of the CWA (40 CFR Part 401), as well as any additional standards established by the publicly owned treatment works (POTW). Identify any pretreatment permits, expiration dates and discharge standards in Table 2-1.</p>			
<p>2.1.5 Is stormwater runoff subject to permit limitations? Depending on the yard and the State, stormwater runoff may be subject to a permit. Currently, a Federal program is being implemented under Section 402 of the CWA.</p>			
<p>2.1.6 Are cooling water intakes/discharges of your yard addressed by a permit? Any cooling water intakes</p>			

ITEM	YES	NO	COMMENTS
or discharges are subject to permit restrictions under Section 316 of the CWA.			
2.1.7 Does the yard have on file copies of Discharge Monitoring Reports (DMRs) for the preceding three years?			
2.1.8 Are the DMRs completely filled out, including sample method and testing frequency?			
2.1.9 If the facility discharges process wastewater to a POTW, does the POTW have an industrial pretreatment program?			
2.1.10 Has the facility submitted a baseline monitoring report (BMR)?			
2.1.11 Does the facility perform regular monitoring of its effluent and report such monitoring to the Control Authority?			
2.2 WETLANDS & MARINE PROTECTION			
2.2.1 Are there any construction activities being conducted in navigable waters? Section 404 of the CWA requires a permit (from the U.S. Army Corps of Engineers) for essentially any form of marine construction activity and construction of bulkheads, breakwaters, jetties, etc, as well as dredging and disposal of dredged sediment. If your answer to the question is "YES," use the "Comments" section to describe the construction activity and permit re-			

*Surface Water - p. 3*

*Wetlands & Marine Projection -p. 1*



ITEM	YES	NO	COMMENTS
quirements. Corps of Engineers permits require that an Environmental Assessment be prepared to address impact of dredging and the deposition of dredge spoils.			
2.2.2 Will the action(s) noted in question 2.2.1 take place in the waters of the United States?			
2.2.3 Does the permit from the Corps of Engineers cover the action?			
2.2.4 Will the action(s) noted in question 2.2.1 take place in international waters? The Marine Protection Research and Sanctuaries Act (16 USC 1401 et seq.) requires that any activity occurring in international waters protect the marine environment and be coordinated with Army Corps of Engineers and other regulating agencies.			
2.3 COMPLIANCE			
2.3.1 Has the yard been issued notices of violation or noncompliance pertinent to the requirements noted in any of the proceeding questions throughout this checklist? If "YES," list the NOV's and corrective actions taken by the yard in Table 2-2.			

*Wetlands & Marine Protection -p. 2*  
*Compliance*

**TABLE 2-1**  
**LIST OF PERMITS**

TYPE & PERMIT NO.	DATE OF ISSUE	ISSUING AGENCY	CURRENT STATUS

**TABLE 2-2**

**NOTICES OF NON-COMPLIANCE/VIOLATIONS**

CITED DEFICIENCY	DATE OF NOTICE	ISSUING AGENCY	CURRENT STATUS

### 3.0 HAZARDOUS WASTES

The checklist on hazardous waste is intended to audit those activities or processes involving the generation and disposal of hazardous waste at shipyards (including past disposal). It includes regulations promulgated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA) (except for above ground and underground tanks which are covered in section 4.0 of the audit manual). This chapter includes a checklist for RCRA compliance, an audit for transporters of hazardous waste and an audit for offsite treatment, storage and disposal facilities (TSDFs).

#### Generation and Disposal

RCRA covers the generation, storage and present disposal of hazardous waste through a “cradle to grave” concept. Hazardous wastes are defined and listed in 40 CFR Part 261. Wastes that are not specifically listed may be hazardous by virtue of their characteristics (e.g., corrosivity, ignitability general reactivity or toxicity). If a waste is not specifically listed, it is the yard’s responsibility to have the waste analyzed to determine if it is a “characteristic” hazardous waste.

Most shipyard generators transport their waste for off-site treatment, storage or disposal. The regulations that apply to generators of hazardous waste are contained in 40 CFR Parts 260 through 262. Generators that store waste for 90 days or less are required to comply with manifest requirements, pre-transport requirements, and recordkeeping and reporting requirements. Generators that store hazardous waste for more than 90 days are considered operators of storage facilities and are subject to the requirements set forth in 40 CFR Parts 264 and 265 and the permit

requirements in 40 CFR Part 270, unless an extension to the 90 day period has been granted.

Although generators that transport wastes for off-site treatment or disposal must select a RCRA permitted treatment or disposal facility they are not required by regulation to perform an audit of the facility. Some generators, however, may want to reduce their future environmental liability by performing an audit of the treatment, storage or disposal facility (TSDF) to assure that the services performed are done so in an environmentally sound manner. For those who wish to conduct an audit of their contracted disposal facility, Appendices A-1 and A-2 contain a comprehensive audit of a hazardous waste transporter and a permitted TSDF. Below is a checklist of the regulatory requirements applicable to hazardous waste generators.

The following identifies several key elements which may assist the shipyard in determining compliance with the RCRA generator requirements.

#### Records to Review

- Generator notification number (EPA ID #),
- Hazardous waste manifests and shipment verifications,
- Manifest exception reports,
- Biennial reports,
- Delisting petitions,
  - Hazardous waste management plans,
  - Operating records for any storage facility
- Contingency plans,
- Inspection logs, and
- Employee training records.

In addition to the above, a permitted TSDF would require a review of the Part B permit and an evaluation of the facility’s compliance with the conditions of the

permit, including contingency plans and closure and post-closure permits and reports.

#### Physical Features to Inspect

- Hazardous waste generating processes,
- Hazardous waste storage facilities (both permitted and under 90 day storage),
- Any permitted treatment storage or disposal facility located on the yard, and
- Any past disposal site (within the limits of appropriate safety considerations).

#### People to Interview

- Shop foremen or hazardous waste coordinators,
- Operator of any storage area, and
- Environmental compliance coordinator for the facility.

ITEM	YES	NO	COMMENTS
<p>3.1 HAZARDOUS WASTES</p> <p>3.1.1 Does the yard produce (generate) a hazardous waste as described in 40 CFR Part 261? List all major wastes generated at this yard by process activity in Table 3-1.</p> <ul style="list-style-type: none"> <li>• If the waste is a “characteristic” hazardous waste (i.e., ignitable, corrosive, reactive, and/or TCLP), indicate which one or more of the characteristics apply to each waste on Table 3.1.</li> <li>• If the State has its own hazardous waste management program, review the program and the list of hazardous wastes and indicate those on Table 3-1 which are not listed in 40 CFR Part 261.</li> </ul>			
<p>3.1.2 Have the wastes identified in Table 3-1 been tested or evaluated to determine if they meet the criteria for classification as a hazardous waste? What testing or evaluations have been performed?</p>			
<p>3.1.3 What kind of generator is the yard?</p> <ul style="list-style-type: none"> <li>• Large quantity generator greater than 1,000 kg of hazardous waste per month or one kg/mo of acute hazardous wastes?</li> <li>• Small quantity generator (SQG): between 100 and 1,000 kg/mo of hazardous waste or less than one kg/mo of acute hazardous wastes.</li> </ul>			

ITEM	YES	NO	COMMENTS
<ul style="list-style-type: none"> <li>•Conditionally exempt SQG: less than 100 kg/mo of hazardous waste and less than one kg/mo of acute hazardous wastes.</li> </ul> <p>If you are a conditionally exempt SQG, proceed to 3.1.20.</p>			
<p>3.1.4 Does the yard have an EPA identification number? If so, list it in the "Comments" column.</p>			
<p>3.1.5 Are hazardous wastes properly stored on-site? Storage requirements are contained in 40 CFR 262.34, Complete Table 3-2 for every storage area to ensure the yard meets 90-day rule. For SQG which does not exceed 6,000 kg total stored on-site at any one time, 180 days (270 days for transport over 200 miles) is allowed.</p> <p>If the yard exceeds any of the time periods specified in 3.1.5, does the yard have permit status as a storage facility? Review compliance with Federal and State requirements for storage facilities if yard is a permitted storage facility.</p> <p>If the yard is a temporary storage facility. review the following items at the yard:</p> <ul style="list-style-type: none"> <li>• Are the containers in good condition: no structural damage, rusting, leaking drums or containers (40 CFR 262.34 and 265.171)?</li> </ul>			

Hazardous Wastes - p.2

ITEM	YES	NO	COMMENTS
<ul style="list-style-type: none"> <li>• Are the containers compatible with the waste stored within the containers (40 CFR 262.34 and 265.172)?</li> <li>• Are all containers labeled with an approved hazardous waste label which includes the name, address and ID number of the generator and the date in which the container was placed in the storage area (40 CFR 262.34)?</li> <li>• Are containers closed at all times except when waste is added or samples taken (40 CFR 262.34 and 265.173)?</li> <li>• Are ignitable or reactive wastes at least 50 feet from property line (40 CFR 262.34 and 265.176)?</li> <li>• Are incompatible wastes separated from each other either by dike, wall or other structure at a suitable distance (40 CFR 262.34 and 265.177)?</li> <li>• Is the site inspected weekly and the results of the inspection recorded? The inspection log should include items such as: date, time, inspector name, conditions of containers and any action taken (40 CFR 262.34 and 265.174)?</li> <li>• Does the storage area have sufficient aisle space as required (40 CFR 262.34 and 265.35)?</li> <li>• Does the storage area have the following (40 CFR 262.34 and 265.32):</li> </ul>			

*Hazardous Wastes - p. 3*



ITEM	YES	NO	COMMENTS
<p>an internal communication or alarm system?</p> <p>- a telephone or two way radio capable of summoning help?</p> <p>- fire extinguishers or fire control equipment?</p> <p>spill control and decontamination equipment?</p> <p>water at adequate volume and pressure?</p> <ul style="list-style-type: none"> <li>•Has the hazardous waste been packaged, labeled, marked, and placarded before transportation in accordance with applicable Department of Transportation requirements (40 CFR § 262.30-.33)</li> <li>•Does the yard train personnel on hazardous waste storage, transportation and disposal procedures, and are refresher courses provided?</li> </ul>			
3.1.6 Does the yard have satellite accumulation areas (40 CFR 262.34(c))? If so, are the satellite accumulation areas in compliance? Complete Table 3-3 for satellite areas. Review satellite storage limit. (Note: State regulations may vary.)			
3.1.7 How does the yard treat or dispose of its waste? Does the yard have a Part B permit to perform any treatment or disposal activity (Are State permits required for treatment processes at the yard)?			

*Hazardous Wastes - p. 4*

ITEM	YES	NO	COMMENTS
3.1.8 If wastes are shipped off-site for disposal or treatment, has the yard properly prepared a manifest?			
3.1.9 Does the manifest consist of enough copies so that the generator, each transporter, and the TSDF owner/operator each get a copy for their records and another copy to be returned to the generator?			
3.1.10 Is there a log for tracking manifests which will trigger an investigation and report to EPA if a copy is not received from the TSDF within 35 days (40 CFR 262.42)?			
3.1.11 Are exception reports prepared for all manifests which have not been received within 45 days (40 CFR 262.42)?			
3.1.12 Has the yard prepared the biennial waste generator reports? If so, are copies of the EPA and/or State biennial waste generator reports on file for the last three years (40 CFR 262.40 and 262.44)?			
3.1.13 Are copies of the exception reports kept on file for the last three years (40 CFR 262.40)?			
3.1.14 Are copies of the manifests kept on file for the last three years (40 CFR 262.40)?			

ITEM	YES	NO	COMMENTS
3.1.15 Are copies of test results and waste analyses kept on file for the last three years (40 CFR 262.40)?			
3.1.16 Are personnel training records for all active employees and all past employees kept on file for the last three years (40 CFR 262.34)?			
3.1.17 Is the generator's yard maintained and operated so as to minimize the possibility of fire, explosion or any unplanned release of hazardous waste to the environment (40 CFR 262.34)? This procedure includes emergency/ preparedness (40 CFR 265 Subpart C), contingency plan, and emergency procedures (40 CFR 265 Subpart D). Spill Prevention Control and Countermeasure (SPCC) plans prepared in accordance with 40 CFR Part 112 or another emergency contingency plan can be used and amended to comply with the requirements in 40 CFR 265.51. Note Section 3.2 RCRA Contingency Plans.			
3.1.18 Does the yard generate any wastes covered under the land disposal restrictions in 40 CFR Part 268?			
3.1.19 If the answer to Question 3.1.18 is "YES," are the proper certifications and notices attached to the manifests and included with all shipments of land ban wastes (40 CFR 268.7)?			
3.1.20 Are there currently any releases of hazardous substances from the yard?			

*Hazardous Wastes - p, 6*

ITEM	YES	NO	COMMENTS
3.1.21 If the answer is "YES," are these current releases authorized in accordance with the conditions of an existing Federal, State, or local permit; and are the current releases in full compliance with these Federal, State or local permits?			
3.1.22 If the answer to question 3.1.21 is "NO," is the quantity of the release in excess of the Reportable Quantity (RQ) defined by 40 CFR 302?			
3.1.23 If the answer to question 3.1.22 is "YES," has the National Response Center been notified?			
3.1.24 Are there any indications that there may have been sites at the yard, based on visual inspection, a review of the records, interviews, aerial photographs, etc., where hazardous material may have been disposed of on-site in the past?			
3.1.25 Has the yard notified EPA of sites where hazardous substances may have been stored, treated, or disposed of in the past as required by section 103 of CERCLA?			
3.1.26 Have past or current hazardous waste storage, treatment, or disposal sites received a preliminary assessment (PA) to determine if additional actions are required to evaluate the risks posed by these sites? (If "YES" review PA.)			

*Hazardous Wastes - p. 7*

ITEM	YES	NO	COMMENTS
3.1.27 Has a physical site inspection (SI) with sampling been performed on any sites where additional information is necessary to evaluate risk posed by the yard?			
3.1.28 Have the sites been scored utilizing the Hazard Ranking System (HRS)? (40 CFR Part 300 App. A).			
3.1.29 If the answer to 3.1.28 is "YES," was the site scored using the old or new HRS, what was the resulting score and did it meet the 28.5 threshold for listing under the National Priorities List (NPL)?			
3.1.30 Have any sites been listed on the Federal Agency Hazardous Waste Compliance Docket or National Priority List?			
3.1.31 Does the yard store, manufacture, process, use or handle any extremely hazardous substances (EHS) as defined by 40 CFR Part 355 Appendix A? If so, are quantities of such substances in excess of the Threshold Planning Quantities (TPQs). If "YES," a series of regulatory requirements are applicable relating to emergency planning and are covered in checklist Section 5.0, Emergency Planning and Community Right-to-Know. You may also be required to prepare a Risk Management Prevention Plan (RMPP) for the local regulatory agency.			

ITEM	YES	NO	COMMENTS
3.2 RCRA CONTINGENCY PLANS			
3.2.1 Does the yard have an emergency contingency plan for releases of hazardous substances from the storage facility?			
3.2.2 Does the yard have the following equipment at its hazardous waste storage area: <ul style="list-style-type: none"> <li>•an internal communication and alarm system,</li> <li>•a telephone or hand-held two way radio capable of summoning emergency assistance,</li> <li>•portable fire extinguishers of appropriate type(s), and</li> <li>•water at adequate volume and pressure for fire fighting purposes?</li> </ul>			
3.2.3 Is there a record of this equipment being tested and maintained?			
3.2.4 Is there sufficient access and aisle space in the storage area for personnel and equipment?			
3.2.5 Are arrangements with the local fire department, police department and emergency response team documented?			
3.2.6 Does the contingency plan describe the actions to be taken in response to a fire, explosion or other emergency?			

RCRA Contingency Plans -p. 1

ITEM	YES	NO	COMMENTS
3.2.7 Are emergency coordinators identified including addresses, home and office telephone numbers?			
3.2.8 Does the plan list all emergency equipment on site?			
3.2.9 Does the plan include evacuation procedures?			
3.2.10 Is the plan in need of revisions due to changed circumstances.?			
3.2.11 Is a copy of the plan maintained on the storage facility premises?			

TABLE 3 - 1

## HAZARDOUS WASTE GENERATING ACTIVITIES

ACTIVITY	WASTES	ESTIMATED AMOUNT (PER MONTH)	DISPOSAL METHOD



TABLE 3 - 2

## HAZARDOUS WASTE STORAGE AREAS

Storage Location

Description of Facility

Response Equipment Available:

Inspection Frequency:

Items Checked in Inspections:

Containers:

TYPE	NUMBER	CONDITION	CLOSED?	COMPATIBLE?	LABELED?	DATE

**TABLE 3 - 3**  
**SATELLITE STORAGE AREAS**

LOCATION	DESCRIPTION	FULL/EMPTY	CONTAINERS: CLOSED?	LABELED?

## 4.0 TANKS

This checklist is intended for use in auditing storage tanks, containing petroleum, petroleum by-products or substances defined as hazardous under Section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) or “Superfund.” This audit section is divided into two sections: one addresses the aboveground storage of petroleum products regulated under the Clean Water Act, and the other addresses underground storage tanks which are regulated under RCRA.

### Aboveground Storage Tanks

The storage, of petroleum products (oil, gasoline, etc.) in above ground tanks is regulated under the Clean Water Act for the prevention of spills that may cause water pollution. The regulation is contained in 49 CFR Part 112.

### Underground Storage Tanks (USTS)

The 1984 amendments to the Resource Conservation and Recovery Act (RCRA) includes provisions for mandating a comprehensive regulatory program for all underground storage tanks that contain petroleum, petroleum by-products (i.e. gasoline, oil, or kerosene) or substances defined as hazardous under CERCLA section 101(14). Tanks holding RCRA Subtitle C hazardous wastes are exempt from 40 CFR Part 280 regulations because they are regulated under 40 CFR Parts 264 and 265.

### Hazardous Waste Storage Tanks

Tanks that store RCRA regulated hazardous wastes are regulated under 40 CFR Parts 264 and 265 Subpart J.

### Records To Review

- Notification records for all in-service, temporarily out-of-service, and permanently closed tanks,
- Results of all tank testing, sampling, monitoring, inspection, maintenance and repair work,
- Spill Prevention Control and Countermeasure (SPCC) Plans,
- Records of all spills, leaks and associated site assessment/cleanup activities relating to tank operations,
- Records of UST disposal, closure, and removal activities and the results of excavation assessments,
- Operating records for all storage tanks, and
- Inspection records for hazardous waste storage tanks.

### Physical Features To Inspect

- Underground and aboveground storage tanks and their vicinities,
- Tank appurtenances such as vents, vaults, leak detection devices, manholes, fill pipes, and gauges,
- Secondary containment for hazardous waste tanks, and
- Spill prevention controls for hazardous waste tanks.

### People To Interview

- Facilities engineering, and/or the organizational entities responsible for compliance with tank environmental regulations.

ITEM	YES	NO	COMMENTS
<p>4.0 TANKS</p> <p>4.1. ABOVEGROUND STORAGE TANKS</p> <p>4.1.1 Does the yard store or have the capacity to store in aboveground storage tanks more than 1,320 gallons of petroleum products or a single container with a capacity of more than 600 gallons? If the answer to this question is "YES," list all the aboveground petroleum storage tanks in Table 4-1.</p>			
<p>4.1.2 If the answer to question 4.1.1 is "YES," has the yard prepared a Spill Prevention Control and Countermeasure (SPCC) plan? If the answer to this question is "YES," review the checklist items in this section 4.4, Spill Prevention Plans.</p>			
<p>4.2 UNDERGROUND STORAGE TANKS (USTs)</p> <p>4.2.1 Does the yard have any underground tanks? An underground tank is defined as any tank or combination of tanks containing regulated substances whose volume is ten percent or more beneath the surface of the ground (40 CFR Part 280). Two exemptions that apply include heating oil tanks for consumptive purposes on the premises and septic tanks. Note that State regulations may vary</p>			

*MKS*

*Above-ground Storage Tanks*

*Underground Storage Tanks - p. 1*

ITEM	YES	NO	COMMENTS
4.2.2 Does the yard have more than 42,000 gallons of underground oil storage capacity? If the answer to this question is "YES," has the yard prepared a SPCC plan (40 CFR Part 112)? If the answer to this question is "YES," review the checklist items in this section, 4.4 SPILL PREVENTION PLANS.			
4.2.3 Are the tanks registered? All existing underground storage tanks and those taken out of service after January 1, 1974 must be registered with the proper State agency (40 CFR 280.22).			
4.2.4 Complete Table 4-2 for each underground tank in the yard.			
4.2.5 Have any USTS been temporarily closed or put out-of-service? If "NO," go to 4.2.8. If "YES," has yard maintained corrosion protection (40 CFR 280.31)?			
4.2.6 Are temporarily closed USTs empty (contain less than one inch, or 0.3 percent by weight of capacity, of residue)? If "NO," go to 4.2.7. If "YES," are release detection systems being maintained? (Note If tank is empty this requirement does not apply.)			

*Underground Storage Tanks -p. 2*

ITEM	YES	NO	COMMENTS
4.2.7 Have USTS been temporarily closed or put out-of-service for more than 3 months? If "YES," are vent lines open and functioning and are all other lines, pumps, manways and ancillary equipment capped and secured (40 CFR 280.70(b))? (Note: Any USTs that have been temporarily closed or put out-of-service for more than 12 months must be permanently closed.)			
4.2.8 Have any USTS been closed or put out-of-service for more than 12 months? If "YES," have the tank closures been properly conducted and documented as required in 40 CFR 280.81 and .72? If "YES," were tanks removed and dismantled or disposed of, or were tanks closed in place? Have State and local tank closure requirements been properly conducted and documented?			
4.2.9 Are proper records maintained as required by 40 CFR 280.34 including: <ul style="list-style-type: none"> <li>• Results of testing, monitoring, inspection, maintenance and repair for one year,</li> <li>• Registration records,</li> <li>• Records of spill, leaks, assessments and cleanup, and</li> <li>• Records of disposal, closure and removal and results of assessments for three years?</li> </ul>			

*Underground Storage Tanks - p. 3*

ITEM	YES	NO	COMMENTS
4.2.10 Have financial assurance requirements been met? 40 CFR Part 280 Subpart H requires UST owners/operators to provide evidence of financial responsibility.			
4.2.11 Are all State and local UST requirements complied with? Most State and local UST regulations vary from the Federal UST requirements.			
4.3. HAZARDOUS WASTE STORAGE TANKS			
4.3.1 Does the yard store hazardous waste in tanks? If "YES," continue with question 4.3.2 and list these tanks in Tables 4-1 or 4-2 as appropriate.			
4.3.2 Does the tank have secondary containment as described in 40 CFR 265.193? All tanks installed after July 1986 must have secondary containment and have their design and corrosion protection system certified by a Registered Professional Engineer. Existing tanks that do not have secondary containment must have a written integrity assessment performed by a Registered Professional Engineer on file. (Small quantity generators can operate an uncovered tank without secondary containment if they maintain at least two feet of freeboard at all times.) Where waste is continually fed into a tank, is the tank equipped with a means to stop flow such as a cutoff or bypass (40 CFR 265.201)?			

*Underground Storage Tanks - p. 4*  
*Hazardous Waste Storage Tanks - p. 1*

ITEM	YES	NO	COMMENTS
4.3.3 Has the yard prepared a spill prevention or contingency plan for tanks containing hazardous waste. If "YES," in addition to the questions that follow, the checklist items in section 4.4 SPILL PREVENTION PLANS should be reviewed.			
4.3.4 Does the tank system have adequate operating controls and procedures to prevent spills and overfills, including spill prevention controls such as check valves, overfill prevention control such as high level alarms, and sufficient freeboard (40 CFR 265.194)?			
4.3.5 Are the tank controls, system controls equipment, and construction materials and surrounding areas, including containment structures, inspected at least once each operating day and the results noted in a log book (40 CFR 265.195)? If "YES," list the items checked and noted in the log book. (Small quantity generators need to inspect the control systems, monitoring equipment, and tank level once a day; inspect for leaks, corrosion and the construction material around the tanks, such as dikes must be inspected weekly (40 CFR 265.201).			
4.3.6 Are ignitable, reactive or incompatible wastes stored in tanks in such a way as to protect the wastes from conditions that may cause them to ignite or react? (40 CFR 265.198).			

*Hazardous Waste Storage Tanks - p. 2*



ITEM	YES	NO	COMMENTS
<p>4.3.7 Are tanks that are no longer in use properly closed in accordance with 40 CFR 265.196 and .197, with the exception of .197(c)?</p> <ul style="list-style-type: none"> <li>•Has the yard removed or decontaminated all wastes residues, containment system components (liners, etc.), contaminated soils, and structures or equipment contaminated with wastes?</li> <li>•Have these wastes been properly disposed of?</li> <li>•Have closure and post-closure plans been submitted, permits obtained, and financial assurance requirements been fulfilled?</li> </ul>			
<p>4.4 SPILL PREVENTION PLANS</p> <p>4.4.1 Has the yard prepared a SPCC plan for its petroleum related storage tanks covered in the previous section or a spill prevention or contingency plan for its hazardous waste tanks? If "YES," review the rest of the questions in this section.</p>			
<p>4.4.2 Does the SPCC contain the following information</p> <ul style="list-style-type: none"> <li>•a description of the facility,</li> <li>•the location, contents and volume of each tank or tank system,</li> <li>•the direction and potential rate of flow to the nearest navigable water,</li> </ul>			

*Hazardous Waste Storage Tanks -p. 3*  
*Spill Prevention Plans - p. 1*

ITEM	YES	NO	COMMENTS
<ul style="list-style-type: none"> <li>• a description of the containment and diversionary structures or equipment employed by the yard to prevent a release of oil or other substances from reaching navigable water, and</li> <li>• a description of emergency notification procedures.</li> </ul> <p>4.4.3 Has the SPCC plan been certified by a Registered Professional Engineer?</p>			
4.4.4 Has the SPCC plan been amended to reflect changes in processes, design or containment measures?			
4.4.5 Has the yard experienced a release or discharge of oil from its tanks in the last 5 years? If the answer to this question is "YES" were the proper authorities notified, follow-up reports submitted and corrective actions taken to alleviate the problem?			

**TABLE 4 - 1**  
**ABOVEGROUND STORAGE TANKS**

DESIGNATION	LOCATION	PRODUCT	SIZE

TABLE 4 - 2

## UNDERGROUND STORAGE TANKS

DESIGNATION	LOCATION	PRODUCT	SIZE	TYPE	AGE	REG.	LD	CP	SP

KEY:

Type:

C - concrete

F - fiberglass

FWS - Fiberglass wrapped steel

S - steel

O - other (describe)

Reg.: Registered

LD: Leak Detection

CP: Corrosion Protection

SE Spill Prevention

## 5.0 EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW

The Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA), promulgated along with the Superfund Amendments and Reauthorization Act of 1986 (SARA), was designed to promote emergency planning efforts at State and local levels and provide citizens and local governments with information concerning potential chemical hazards in their communities. The Act, also known as SARA Title III, imposes requirements for facilities to provide emergency hazardous chemical release notification, chemical inventory reporting and toxic chemical release reporting. SARA Title III gives States the authority to implement the law's requirements. State Emergency Response Commissions and Local Emergency Planning Committees have been appointed within each State to receive this information and to use it for chemical emergency preparation and community awareness.

Federal facilities are not required by statute to comply with the provisions of SARA Title III because Federal agencies are not included in the definition of a "person" contained in section 329 (7) of the Act. However, DOD policy requires facilities to comply with the substance of SARA Title III, but not the reporting requirements. Contractor operations are not exempted by definition under the Act and are therefore subject to the provisions of Title III.

The following is a list of several key elements which may assist the auditor in focusing his/her activities.

### Records to Review

- Hazardous substance inventories,
- Notifications of releases,
- Communications/correspondence with the State Emergency Planning Commission and/or Local Emergency Planning Committee, including
  - Tier I and II reports
  - Forms R, and
- Emergency release follow-up reports.

### Physical Features to Inspect

- Chemical storage tanks, and
- Material storage areas.

### People to Interview

- Manager of the environmental compliance program, and
- Environmental compliance coordinator.

ITEM	YES	NO	COMMENTS
<p>5.1 EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW</p> <p>5.1.1 Does the yard store, use or handle any extremely hazardous substances in excess of the Threshold Planning Quantities (TPQ) listed in 40 CFR Part 355 Appendix A? If the answer to this question is "YES," list these substances on Table 5-1 and proceed to question 5.1.2. If answer is "NO," proceed to question 5.1.8.</p>			
<p>5.1.2 Has the yard notified the State Emergency Response Commission (SERC) that the yard stores, uses or handles extremely hazardous substances in excess of the Threshold Planning Quantities?</p>			
<p>5.1.3 Has the yard identified, to the Local Emergency Planning Committee (LEPC), a yard emergency coordinator to participate in the local emergency planning process?</p>			
<p>5.1.4 Does the yard maintain Material Safety Data Sheets (MSDSs) on chemicals which are required by OSHA under 29 CFR Part 1910.1200 (Hazard Communication Standard)?</p>			

ITEM	YES	NO	COMMENTS
5.1.5 If the answer to 5.1.4 is "YES," has the yard provided copies of the MSDSs or a list of chemicals subject to MSDSS for those chemicals meeting the minimum thresholds under 40 CFR Part 370 to the SERC, LEPC and local fire department (40 CFR 370.21)?			
5.1.6 Does the yard have a system in place for supplying new MSDSS, supplementing old MSDSs with new information and responding to requests from the SERC, LEPC or the public (40 CFR 370.21)?			
5.1.7 Has the yard provided a Tier I or Tier II inventory form for those chemicals meeting the minimum thresholds under 40 CFR Part 370 to the SERC, LEPC and local fire department annually on March 1 of each year (40 CFR 370.25)?			
5.1.8 Does the yard manufacture or process in quantities greater than 25,000 lbs. per year, or use in excess of 10,000 pounds per year, any toxic substance listed under 40 CFR 372.3 and 372.65?			
5.1.9 If the answer to question 5.1.8 is "YES," has the yard completed and submitted to EPA and the SERC an annual toxic chemical release reporting form (Form R) for each toxic chemical that was manufactured, processed or used in excess of the specified quantity during the preceding year? [Review all Forms R]			

*Emergency Planning and Community  
Right-fo-Know -p. 2*

ITEM	YES	NO	COMMENTS
5.2 EMERGENCY RELEASE NOTIFICATION			
5.2.1 Has the yard experienced a release of a hazardous or extremely hazardous substance in a reportable quantity that went outside the facility boundaries (40 CFR 355.40)? If "YES," fl proceed to the next question. If "NO," proceed to the next checklist.			
5.2.2 Did the yard immediately notify the SERC and the LEPC and/or local fire department of the release (40 CFR 355.40(b))?			
5.2.3 Did the yard provide a follow-up notice in writing describing, among other things, the kind of release, its time and duration, any known or anticipated health risks associated with the emergency actions taken to respond to and contain the release and the names of individuals at the facility to contact in case of any question (40 CFR 355.40(b)(3))? (Review all follow-up notices.)			

*Emergency Release Notification*



**TABLE 5 - 1**  
**HAZARDOUS SUBSTANCE INVENTORY**

SUBSTANCE	LOCATION	AMOUNT	ABOVE TPQ

## 6.0 MEDICAL WASTES

With the public health concern over the increasingly frequent appearance of medical waste on the public beaches, Congress amended RCRA through the enactment of the Medical Waste Tracking Act of 1988. The regulations are promulgated in 40 CFR Part 259 (Standards for the Tracking and Management of Medical Waste) and are administered by the U.S. EPA. The regulations establish a two year demonstration program (June 22, 1989 through June 22, 1991) for tracking medical wastes, from generator to disposal.

Medical wastes are defined as “any waste which is generated in the diagnosis, treatment, or immunization of the human being or animal, in research pertaining thereto, or in the production or testing of biological materials.” Specific types of wastes included in the tracking program are

- Cultures and stocks of infectious agents and associated biological materials,
- Human pathological wastes, including tissues, organs, and body parts and fluids,
- Human blood and blood products,
- All used sharp implements, such as needles and scalpels, and certain other glassware items, and
- Unused but discarded sharp items, including hypodermic needles, suture needles, syringes, and scalpel blades.

The medical waste tracking and management system is fundamentally similar to RCRA’S existing system for hazardous waste tracking and management. The medical waste demonstration system utilizes a medical waste tracking form with copies returning to the generator from the disposer.

Four states (Connecticut, New Jersey, New York, Rhode Island and Puerto Rico) are participating in the two year program. The regulations do not apply to facilities in any other states. After the two year program, EPA will prepare a report to Congress evaluating the effectiveness of the tracking program. The demonstration program may then be expanded to nationwide coverage.

Several states, other than those participating in the demonstration tracking program, have their own medical waste programs.

The following lists several key elements which may assist the auditor in focusing his/her activities.

### Records to Review

- On-site medical waste incinerator operating log/report to EPA,
- Log of waste shipment tracking forms/return copies,
- Log of exception reports, and
- Contracts with independent waste haulers/disposers.

### physical Features to Inspection

- Medical wastes packaged for transport,
- Medical waste transport containers, and
- Medical waste storage areas.

### People to Interview

- Director of medical unit,
- Director of facility or civil engineering,
- Hazardous waste coordinator, and
- Solid waste coordinator.

ITEM	YES	NO	COMMENTS
6.1 MEDICAL WASTE MANAGEMENT			
6.1.1 Does the yard generate regulated medical wastes as defined in 40 CFR 259.3? If no specific waste types as classified in 40 CFR 259 are generated go to next section of checklist.			
6.1.2 Is the yard located in the state of Connecticut, New Jersey New York, Rhode Island, or the Commonwealth of Puerto Rico? If so, and the yard generates medical waste, it is subject to the Demonstration Medical Waste Tracking Program codified in 40 CFR Part 259 regulations. If the yard is not located in Connecticut, New Jersey, New York, Rhode Island or Puerto Rico, check to see if the State has its own medical waste tracking requirements.			
6.1.3 Are regulated medical wastes disposed of in general trash? Mixtures of otherwise non-hazardous solid waste (general trash) and regulated medical waste must be treated as regulated medical waste, in their entirety (40 CFR 259.31).			

ITEM	YES	NO	COMMENTS
6.1.4 Are regulated medical wastes mixed with hazardous wastes regulated under 40 CFR 262 or 266? Mixtures of regulated medical wastes and any hazardous wastes (as defined in 40 CFR Part 261) subject to the hazardous waste manifest requirements of 40 CFR 262 or 266 are regulated as a hazardous waste. However, mixtures of regulated medical wastes and any hazardous waste exempted from manifest requirements under the small quantity generators exclusion (40 CFR 261.5) are regulated as medical wastes (40 CFR 259.31)			
6.1.5 Are regulated medical wastes disposed of on site? If on-site disposal methods are used, the yard is exempt from the tracking requirements of the Act. On-site disposal may include incineration, burial, or discharge to a sanitary sewer in accordance with sections 307 (b)-(d) of the Clean Water Act (40 CFR 259.50).			
6.1.6 Is on-site disposal of medical waste generated by the yard accomplished through incineration? If the yard disposes of the medical waste through on-site incineration, the yard must nevertheless comply with the requirements in 40 CFR Part 259 Subpart G for on-site incinerators.			

*Medical Waste Management - p. 2*

ITEM	YES	NO	COMMENTS
6.1.7 Does the yard accept regulated medical waste from other, off-site facilities for on-site incineration? If regulated medical wastes from other off-site facilities are incinerated by the facility, recordkeeping requirements apply to the yard (40 CFR 259.61).			
6.1.8 Are regulated medical wastes disposed of off-site? If so, the yard is a "generator" and is subject to the full tracking requirements of the Act specified in 40 CFR 259.			
6.1.9 Are regulated medical wastes off-loaded to the yard from vessels? Medical wastes transported ashore from vessels in port are subject to the regulatory requirements of the port State (40 CFR 259.50).			
6.1.10 Does the yard ship generate > 50 pounds/ month of medical waste for off-site disposal? Generators of > 50 pounds/month of regulated medical wastes are subject to the full tracking and recordkeeping requirements of the Act.			
6.1.11 Does the yard ship < 50 pounds/month of medical waste for off-site disposal? Partial exemptions to certain aspects of the regulatory requirements are available to generators of < 50 pounds/month of regulated medical wastes (40 CFR 259.51).			

ITEM	YES	NO	COMMENTS
6.1.12 Does the yard use a contractor or other outside entity for transporting the regulated waste? All transporters must have notified EPA under the requirements of 40 CFR 259.51			
6.1.13 Are regulated medical wastes intended for off-site shipment segregated prior to shipment?			
6.1.14 Are non-regulated medical wastes included in the same container as regulated medical wastes in packing for shipment?			
6.1.15 Are shipping containers for regulated medical waste rigid, leak-resistant, impervious to moisture, resistant to tearing or bursting, and sealed to prevent leakage (40 CFR 259.41).			
6.1.16 Are regulated wastes stored on-site prior to on-site disposal or shipment for off-site disposal? If "YES," certain temporary storage requirements apply (40 CFR 259.42).			
6.1.17 Are storage or transport containers reused? If "YES," certain reuse requirements apply (40 CFR 259.43).			
6.1.18 Are waste containers intended for shipment for off-site disposal labeled as either untreated or treated regulated medical wastes (40 CFR 259.44)?			

*Medical Waste Management - p. 4*

ITEM	YES	NO	COMMENTS
6.1.19 Are packages of regulated wastes intended for shipment for off-site disposal marked with (1) the generators name and State permit number (2) the transporter's name and state permit ID number (3) date of shipment, and (4) identification of the contents as "Medical Wastes?"			
6.1.20 Are regulated wastes shipped to foreign countries for disposal? If "YES," certain requirements apply (40 CFR 259.53).			
6.1.21 Does the yard maintain a record of all shipments of regulated wastes transported off-site (40 CFR 259.54)?			
6.1.22 Does the yard file exception reports if the transport form copies are not received (40 CFR 259.55)?			
6.1.23 Is the yard involved in the off-site transport of regulated medical wastes (40 CFR Part 259 Subpart H)?			
6.1.24 Does the yard receive regulated medical wastes from other, off-site generators for on-site disposal (40 CFR Part 259 Subpart I)?			
6.1.25 Does the yard engage in rail transport of regulated medical wastes (40 CFR Part 259 Subpart J)?			

*Medical Waste Management -p. 5*

## 7.0 PCBs

Section 6 of the Toxic Substances Control Act (TSCA) requires EPA specifically to regulate the manufacturing, use and disposal of polychlorinated biphenyls (PCBs). For shipyards, regulatory concerns regarding PCBs will result most often from the use, storage or removal of electric equipment, such as transformers and capacitors, on hydraulic equipment.

The following lists several key elements which may assist the auditor in focusing his/her activities.

### Records to Review

- Inspection, storage, maintenance and disposal records for PCBs and PCB contaminated items,
- “ PCB equipment inventory and sampling results,

- Correspondence with regulatory agencies, and
- Annual reports.

### Physical Features to Inspection

- PCB storage areas, and
- Transformers or other equipment that may contain PCB fluids and require proper PCB labels.

### People to Interview

- Facilities Engineering
- Electrical Maintenance Staff, and
- Environmental Compliance Coordinator



ITEM	YES	NO	COMMENTS
<p>7.1 PCB MANAGEMENT</p> <p>7.1.1 Does the yard have in-service, or store for future use or disposal any of the following</p> <p>A. 50 or more large high or low-voltage PCB capacitors?</p> <p>B. One or more PCB transformers?</p> <p>C. 45 kgs (99.4 lbs.) or more of PCB chemicals, substances, or mixtures?</p> <p>If the answer is "YES," have proper records been kept of information such as dates in and out of service, quantities of PCB in questions, and location of storage areas (40 CFR 761.3 and 761.180).</p>			
<p>7.1.2 Has an inspection been made to determine the number and location of all large capacitors? A large capacitor has a volume greater than 200 cubic inches or a weight equal to or greater than 9 lbs (40 CFR 761.30(1)).</p>			
<p>7.1.3 Have all the annual records and written annual logs been maintained as required in 40 CFR Part 761 Subparts J and K? These include:</p> <ul style="list-style-type: none"> <li>• Annual Records <ul style="list-style-type: none"> <li>• All manifests prepared during calendar year and certificates of disposal for calendar year.</li> </ul> </li> </ul>			

PCB Management -p. 1

ITEM	YES	NO	COMMENTS
<ul style="list-style-type: none"> <li>• Written Annual Log <ul style="list-style-type: none"> <li>• Name, address and EPA ID number of the yard and the year covered.</li> <li>• Manifest number for all PCB waste shipments during the year.</li> </ul> </li> <li>• For all stored waste and waste manifested during the year, the following information: <ul style="list-style-type: none"> <li>• Weight of PCB fluid,</li> <li>• Date of removal from service, date placed in storage, and disposal date,</li> <li>• The unique ID or serial number for each PCB article or container,</li> <li>• Totals for all the above information,</li> <li>• Other records such as telephone logs for investigation of manifests, etc., and</li> <li>• The total number, and weight of PCB, of those PCB transformers, capacitors and items still in service.</li> </ul> </li> </ul>			
7.1.4 Have all the records and information required in question 7.1,3 been kept on file for the last three years?			

*PCB Management -p. 2*

ITEM	YES	NO	COMMENTS
7.1.5 Has a survey been made to determine if any network PCB transformers are in use? Were radial PCB transformer systems checked to determine if yard modifications had converted radial systems to network (40 CFR 761.30)?			
7.1.6 Does the yard have any other PCB items (electromagnets, hydraulic systems, heat transfer systems, power factor correction devices, etc.)?			
7.1.7 Have all items suspected of containing PCBs been tested to determine the concentration of PCBs and are the results on file?			
7.1.8 If the answer to question 7.1.6 is "YES" were the PCBs sampled and analyzed by EPA-approved methods?			
7.1.9 Are all PCB items properly marked, as detailed in 40 CFR 761.40 and 761.45?			
7.1.10 Have PCB transformers in-service been registered with the local fire department (40 CFR 761.30)?			
7.1.11 Has each PCB transformer been visually inspected for leaks at least once every 3 months? (Review 40 CFR 761.60 for cleanup and notification requirements.)			

*PCB Management -p. 3*

ITEM	YES	NO	COMMENTS
7.1.12 Are any combustible materials stored within a PCB transformer enclosure, within 5 meters of a PCB transformer or if unenclosed, within 5 meters of a PCB transformer?			
7.1.13 Have any PCB transformers been involved in a fire related incident which caused a release of PCBs? Was the National Response Center notified?			
7.1.14 Have records of the inspection and maintenance history of each transformer been kept for at least 3 years after disposing of transformers?			
7.1.15 Does the yard have its own storage site for PCBs and related equipment?			
7.1.16 Does the storage site meet the physical requirements stated in 40 CFR 761.65?			
7.1.17 Is the storage area adequately marked and all PCB items labeled with initial storage date and concentrations?			
7.1.18 Have proper records been kept of activities at the storage site (40 CFR 761.180)?			
7.1.19 Does the yard meet the operational storage requirements of 40 CFR 761.65 including the use of DOT specification containers for PCB wastes, inspections for leaks every 30 days and a limitation on the storage time of one year?			

PCB Management -p. 4

ITEM	YES	NO	COMMENTS
7.1.20 If the generator operates a storage facility for PCB wastes did they notify EPA by April 4, 1990 of their PCB operations on form 7710-53 as required by 40 CFR 761.205?			
7.1.21 Does the yard ever drain or cleanse PCB equipment or items prior to disposal (40 CFR 761.79)?			
7.1.22 Does the yard have any PCB-related items which have a PCB concentration of 50 ppm or greater which are in need of disposal (40 CFR Part 761 Subparts D and K)?			
7.1.23 Are PCB shipment manifests prepared and on file as required by 40 CFR 761.207,208 and 209?			
7.1.24 Is there a log to track outstanding manifests which will trigger an investigation after 35 days?			
7.1.25 Are exception reports prepared and submitted to EPA for all manifests not received within 45 days and for certificates of disposal not received within 13 months from date of removal from service (40 CFR 761.215)?			

PCB Management -p. 5

## 8.0 PESTICIDES

Under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), EPA is responsible for the registration of all new pesticides and the re-registration of all existing pesticides to ensure that when used according to the label directions, they will not present unreasonable risks to human health or the environment. FIFRA regulations apply to persons who manufacture, market, formulate, distribute, use or dispose of pesticides. In shipyards, FIFRA regulations will most likely apply to the mixing and application of tributyltin (TBT)-based and other anti-fouling paints, as well as routine insecticides.

The following lists several key elements which may assist the auditor in focusing his/her activities.

### Records to Review

- Records of pesticide purchases,
- Pesticide application records,

- Description of the facility's pest control program,
- Certificates of applicators of restricted-use pesticides, and
- Contracting documents for the application of pesticides by outside contractors.

### Physical Features to Inspection

- Pesticide storage area, and
- Pesticide storage containers.

### People to Interview

- Pesticide applicators,
- Environmental Compliance Coordinator, and
- Paint Superintendent.

ITEM	YES	NO	COMMENTS
8.1 PESTICIDE MANAGEMENT			
8.1.1 Are pesticides (including anti-fouling paints) used, applied, stored, or disposed of at the yard? If "YES," continue.			
8.1.2 Are pesticides applied by yard personnel? If "YES," describe the type(s) used (TBT paint etc.) and where they are applied.			
8.1.3 Are any "RESTRICTED-USE" pesticides used? Regulations in 40 CFR Part 171 require certification and State regulations should be reviewed (TBT paint is RESTRICTED USE).			
8.1.4 Does the yard hire a commercial applicator or use yard personnel for the application of pesticides?			
8.1.5 If the yard hires a commercial applicator is the contractor certified?			
8.1.6 If the yard uses its own employees in applying pesticides, are these personnel certified?			
8.1.7 Are paint supervisors certified?			
8.1.8 Does the yard provide training in the application of pesticides? If "YES," is the yard's training program certified?			
8.1.9 Does the yard keep inventory records of pesticides in use and not in use?			

*Management - p. 1*

ITEM	YES	NO	COMMENTS
8.1.10 Where are pesticide materials stored (40 CFR 165.10)?			
8.1.11 Are pesticide storage areas kept locked?			
8.1.12 Are pesticide storage areas well ventilated?			
8.1.13 Are pesticide storage areas posted with pesticide or chemical warning signs (e.g., DANGER-POISON)?			
8.1.14 Are pesticides separated by type?			
8.1.15 Are pesticides properly labeled by type?			
8.1.16 Is the equipment used to apply pesticides cleaned between applications?			
8.1.17 How is rinse liquid disposed (review 40 CFR 165.7-165.9)?			
8.1.18 Are pesticide disposal directions on the label followed?			
8.1.19 Are empty containers triple rinsed prior to disposal? Is rinse water properly disposed of after rinse?			
8.1.20 Are pesticides containers offered for scrap or recycling?			
8.1.21 Is there a pesticide container disposal site at the yard?			

*Pesticide Management - p. 2*



ITEM	YES	NO	COMMENTS
8.1.22 Is the above-mentioned disposal site fenced and locked?			
8.1.23 Are pesticide containers punctured or crushed to help prevent improper reuse?			
8.1.24 Are pesticide or chemical warning signs posted?			

*Pesticide Management - p. 3*

## 9.0 WASTE MINIMIZATION

This checklist will be used to perform a self audit and assist the yard in its waste reduction program. This checklist contains a list of questions about ways your yard generates and manages its wastes. The NSRP is developing a more comprehensive guide which can be used to assist you in your waste reduction program.

The purpose of a waste reduction program should be to decrease the volume and toxicity of the yard waste. This program is essential from an environmental, economic and legal viewpoint. Under RCRA, generators are required to certify that they attempt to minimize wastes. A written waste reduction plan is the most effective way to achieve waste minimization. A written plan will satisfy the certification program requirements, provide data for biennial reporting requirements, and outline the proactive waste reduction options being explored.

On October 27, 1990, Congress passed the Pollution Prevention Act. This Act declares a national policy that pollution should be prevented or reduced at the source when ever feasible and establishes source reduction as a first priority followed by recycling, treatment and proper disposal.

The following lists key elements which may assist the auditor in focusing his/her activities.

### Records to Review

- Waste minimization plans,
- Spill Control and Countermeasure Plan (SPCC),
- Hazardous waste release prevention plan, and
- Raw materials management plan or directives.

### Physical Features to Inspect

- Raw materials storage areas,
- Hazardous and solid waste storage areas, and
- Storage tanks.

### People to Interview

- Environmental Compliance Coordinator and others as determined.

ITEM	YES	NO	COMMENTS
<p>9.0 WASTE MINIMIZATION</p> <p>9.1 HAZARDOUS MATERIAL STORAGE AND HANDLING</p> <p>9.1.1 <u>Raw Materials Storage</u></p> <p>Where are raw materials stored?</p> <p>Is this a high-traffic area?</p> <p>Can traffic through the storage area be reduced?</p> <p>Are raw materials stored so that damage, spillage, or weather exposure is prevented?</p> <p>Are storage areas bermed or are spills otherwise controlled?</p> <p>Are outdoor storage areas paved?</p> <p>Are storage areas locked at all times?</p> <p>Does the layout of the yard minimize travel distance between raw materials storage and point of use?</p> <p>Are hazardous raw materials stored separately from nonhazardous raw materials?</p> <p>Is sufficient distance kept between different types of chemicals and materials to prevent cross contamination or reactions between incompatible materials in the event of a spill?</p>			

Waste Minimization  
Hazardous Material Storage  
and Handling - p. 1

ITEM	YES	NO	COMMENTS
<p>Are all raw material containers inspected for damage before being accepted?</p> <p>What are the handling procedures for empty containers?</p> <p>Are off-spec raw materials and free samples returned to the supplier? If not how are off-spec raw materials disposed?</p>			
<p><b>9.1.2 Raw Materials Inventory</b></p> <p>Are materials used on a first-in, first-out basis to prevent material expiration?</p> <p>Are waste materials generated because material has exceeded its shelf-life?</p> <p>Is the inventory of the raw materials minimized to prevent material expiration?</p> <p>Does the supplier of raw materials accept expired materials?</p> <p>Are expired or excess materials shipped back to the supplier?</p> <p>Is your inventory system computerized? If not, how is inventory tracked?</p> <p>How often are complete inventory checks of raw materials performed?</p>			

*Hazardous Material Storage  
and Handling - p. 2*

ITEM	YES	NO	COMMENTS
Which hazardous raw materials do you carry in inventory? List all materials.			
<p><u>9.1.3 Spill Prevention and Management</u></p> <p>Are drip pans used beneath spigots and valves to collect spills and drips?</p> <p>Are drums and tanks for storage adequately spaced to allow for visual inspection of each container?</p> <p>Are liquid storage tanks monitored for leaks?</p> <p>How often are inspections made?</p> <p>Are storage containers fitted with tight-fitting lids?</p> <p>Are overflow alarms on storage containers tested regularly?</p> <p>Are drum bungholes sealed or fitted with tight valves?</p> <p>Are secondary containment in place?</p> <p>Are solvent and fuel storage tanks fitted with vapor recovery systems?</p> <p>Is a spill control/management plan in use at the yard?</p> <p>Are employees trained to handle materials in a manner that is safe and designed to reduce spillage?</p>			

*Hazardous Material storage  
and Handling - p. 3*

ITEM	YES	NO	COMMENTS
<p>How often is employee training given?</p> <p>Are measures employed to prevent liquid spillage during dispensing?</p> <p>How are liquid materials transferred to point of use?</p> <p>Are spill containment measures in use at the yard?</p> <p>Are there procedures for liquid spill cleanup?</p> <p>How are solid materials transferred to points of use?</p> <p>Are spilled materials disposed of as wastes?</p> <p>Are spilled raw materials collected for reuse?</p> <p>Is sandblast grit removed on a frequent basis?</p> <p>Are practices implemented to keep sandblast grit in a contained area?</p> <p>Are there procedures for solid spill cleanup?</p> <p>Are all spills documented?</p> <p>Are practice drills for spill cleanup performed?</p> <p>How often are these drills performed?</p>			
<p>9.2 WASTE GENERATING ACTIVITIES</p> <p>Which of the following waste generating activities occur and which wastes are generated?</p>			

*Hazardous Material Storage  
and Handling - p. 4  
Waste Generating Activities - p. 1*

ITEM	YES	NO	COMMENTS
Sandblasting Blast grit Paint chips Other Nonabrasive paint removal: Organic paint removers Contaminated wastewater Paint sludge Other Painting: Waste paints Spent thinners Spent cleaning solvents Other Note: TBT paint is a restricted pesticide. Fiberglass repair Off-spec resins Other			

*Waste Generating Activities - p. 2*

ITEM	YES	NO	COMMENTS
Battery replacement			
Used batteries			
Battery acid			
Engine repair:			
Used oil			
Chemical degreasers			
Carburetor cleaner			
Spent acid/caustic			
Spent hydraulic fluid			
Other			
Machine shop:			
cutting oils			
Degreasing solvents			
Other			
Electroplating:			
Spent plating solutions			
Spent etching solutions			
Rinse water			

*Waste Generating Activities - p. 3*



ITEM	YES	NO	COMMENTS
Other Bilge water removal Bilge waste			
9.3 WASTE STORAGE AND HANDLING PRACTICES  Where is the waste stored on site before disposal? How is the waste stored? What is the volume of the containers? Are the containers labeled with contents? Are the containers dated? Is the waste stream Mixed with other hazardous waste streams? Diluted with water? Mixed with nonhazardous waste streams? Other If mixed, what is reason for mixing? List the components of the waste stream that makes its management a problem and the difficulties associated with the component. Extremely hazardous waste			

Waste Generating Activities - p. 4  
Waste Storage and Handling Practices - p. 1

ITEM	YES	NO	COMMENTS
<p>No appropriate TSDF nearby</p> <p>High treatment or disposal cost</p> <p>Other</p> <p>Describe the management practice for the waste stream:</p> <p>Stored on site until a specific volume or quantity is generated</p> <p>Transported off-site immediately</p> <p>Treated on-site immediately</p> <p>Other</p> <p>How is the waste removed from the site?</p> <p>Private waste hauler</p> <p>Recycler/reclaimer</p> <p>Public collection system</p> <p>Other</p> <p>Are manifests received from the hauler for offsite disposal?</p> <p>Does the waste stream fall under any regulatory classification?</p>			

*Waste Storage and Handling Practices - p. 2*

ITEM	YES	NO	COMMENTS
<p>9.4 WASTE MANAGEMENT PRACTICES</p> <p>Management Practices</p> <p>A= Onsite reuse or recycling  B= Offsite treatment or recycling  C= Onsite treatment  D= Collected by waste service contractor  E= Disposal in Municipal solid waste  F= Disposal in municipal sewer  G= Discharge to land or surface water</p> <p>From the list below, indicate the current waste management practice for your hazardous waste streams:</p> <p>Blast grit  Paint chips  Organic paint removers  Paint-contaminated wastewater  Paint sludge  Excess paints  Spent thinners  Spent cleaning solvents  Off-spec resins  Used oil  Used batteries  Battery acid  Chemical degreasers</p>			

Waste Management Practices - p. 1

ITEM	YES	NO	COMMENTS
Carburetor cleaner Spent acids/caustics Spent hydraulic fluids cutting oils Spent plating solutions Plating rinse water Bilge waste			
9.5 WASTE REDUCTION PROGRAM 9.5.1 <u>Management</u> Has management volunteered for EPA's Industrial Toxics Project (or the "33/50" program)? Has the management of the yard committed itself to a waste reduction program? Have any specific goals been set for this program? What are the goals? Have any of the goals been achieved?			
9.5.2 <u>Employee Awareness</u> Are employee education programs used to reduce waste generation? Is there an employee incentive program for waste reduction? Are employees made aware of the disposal costs and liabilities associated with hazardous wastes?			

Waste Management Practices - p. 2  
 Waste Reduction Program - p. 1

ITEM	YES	NO	COMMENTS
<p>Are employees made aware of the causes of waste generation as it relates to their area of responsibility</p> <p>Has the yard considered closer supervision of the workplace in order to reduce waste generation?</p> <p>Are operations personnel fully aware of all applicable Federal, State and local regulations?</p> <p>Is there a listing of all permits currently held by the yard?</p> <p>Is this list readily accessible?</p> <p>Who is in charge of preparing and submitting permit applications and regulatory reporting?</p>			
<p><u>9.5.3 Waste Management and Reporting</u></p> <p>Is each individual waste stream and its management costs tracked from "cradle to grave"?</p> <p>Are there one or more employees designated for tracking waste streams?</p> <p>Are biennial hazardous waste reports prepared for the yard?</p> <p>Who prepares the reports?</p> <p>Who is in charge of filing waste manifests and biennial reports?</p>			

ITEM	YES	NO	COMMENTS
<p>Are copies readily accessible?</p> <p>Has the yard had a waste audit or survey conducted in the past? If yes, what were the findings of this study?</p> <p>Have the recommendations of this study been implemented? If not, why?</p> <p>If yes, describe what changes were made and the effects of these changes.</p>			
<p>9.6 WASTE REDUCTION OPPORTUNITIES</p> <p>9.6.1 <u>Source Reduction</u></p> <p>Are any waste reduction activities planned for the future?</p> <p>Have any waste reduction options been considered, but rejected?</p> <p>Has the company evaluated the applicability of non hazardous substitutes for any of these substances?</p> <p>Use of solvent-based paints or primers?</p> <p>Use of detergents instead of solvents?</p> <p>Use of sand or flint instead of metal slags?</p> <p>Use of caustic soda instead of organic solvent stripper?</p>			

*Waste Reduction Program - p. 3*

*Waste Reduction Opportunities - p. 1*

ITEM	YES	NO	COMMENTS
<p>Use of aqueous degreasers instead of solvent cleaners?</p> <p>Have process and/or equipment modifications been investigated as a method of waste minimization?</p> <p>Which of the following process modifications have been evaluated?</p> <p>    Use of airless paint sprayers?</p> <p>    Use of a commercially leased paint gun cleaning service?</p> <p>    Use of powder coating?</p> <p>    Use of commercial solvent sinks or engine repair and specialty shops?</p>			
<p><b>9.6.2 <u>Recycle and Resource Recovery</u></b></p> <p>Are any of the following steps taken to improve waste recycling?</p> <p>    Substitution with recyclable material?</p> <p>    Minimization cross contamination?</p> <p>    Waste segregation?</p> <p>    Minimization dilution?</p> <p>Are any of the following processes for recovering or reusing wastes on site in use?</p>			

ITEM	YES	NO	COMMENTS
<p>Direct reuse in other processes?</p> <p>Distillation?</p> <p>Gravity separation/reuse?</p> <p>Energy recovery?</p> <p>Are commercial solvent sinks used for parts cleaning?</p> <p>Are spent solvents recovered onsite?</p> <p>If not, has onsite solvent recovery been considered?</p> <p>If waste solvent generation is too small to justify recycling, can solvent usage be standardized, thereby generating recyclable solvent waste streams?</p>			
<p><b>9.6.4 <u>Treatment</u></b></p> <p>Are hazardous and nonhazardous wastes separated?</p> <p>Does the yard management keep up to date regarding the latest treatment technologies for marine yard wastes?</p> <p>Is wastewater treated prior to discharge?</p>			

*Waste Reduction Opportunities -p. 3*



ITEM	YES	NO	COMMENTS
<p>Which of the following wastewater treatment processes are in use at your yard?</p> <p>Coagulation or precipitation of heavy metals?</p> <p>Carbon adsorption to remove organic compounds?</p> <p>Neutralization of acids and bases?</p> <p>Oxidation of cyanide in electroplating wastewater?</p> <p>Oil/water separator for bilge water?</p> <p>Can treated wastewater be used for any of the following operations?</p> <p>Container rinsing?</p> <p>Equipment cleaning?</p> <p>Floor washing?</p>			

## 10.0 PROPERTY TRANSFERS

Landowners who purchase, rent, or lease property or who have “care custody and control” of property can incur potentially significant liabilities for the remediation of a contaminated site. In order to address potential inequities in such liability, Congress established the “innocent landowner defense” under the Superfund Amendments and Reauthorization Act of 1986 (SARA), which limits the liability of the landowner who makes all appropriate inquiry into the environmental condition of the property before purchasing it. As of yet neither EPA nor the courts (via case law) have established guidelines that define the requirements of “all appropriate inquiry”

Prospective landowners, particularly those with limited resources, are often unsure of the steps they need to take to ensure compliance with the letter and the intent of the law, and prevent possible liability. Without the proper guidance, however, they are likely to conduct inadequate environmental investigations of property

they are considering purchasing, because their investigations are based on a limited and sometime incorrect understanding of the legal requirements. Prospective landowners who take adequate steps and obtain certified professional help to comply with the intent of SARA will reduce their liability.

Depending on the extent of the acquisition, yards should have an experienced consultant conduct the site assessment. If the yard has the resources and the experience, some parts of the assessment can be done internally. We recommend that companies put together a team composed of a qualified environmental consultant and an experienced environmental attorney before the land ownership is legally/officially transferred.

The primary objective of this checklist is to be used as an aid for professional auditors who have conducted property transfer audits.

ITEM	YES	NO	COMMENTS
10.0 PROPERTY TRANSFERS			
10.1 ENVIRONMENTAL CLEANUP RESPONSIBILITIES			
10.1.1 Have you checked the Environmental Cleanup Responsibilities Act (ECRA) or similar laws that apply in your State for your transaction?			
10.1.2 Have you requested from the State environmental agency any available summary guidance, or forms pertaining to the law?			
10.1.3 Have these been adequately reviewed in-house to ensure compliance e.g. with a government-approved "negative declaration")?			
10.2 PRE-ACQUISITION ASSESSMENTS			
10.2.1 Have you reviewed the background information on the site?			
10.2.2 Have property records been reviewed?			
10.2.3 Have tax records been reviewed?			
10.2.4 Have environmental records (permits, permit applications, enforcement records, previous owners/operators) been researched and reviewed?			

*Property Transfers*  
*Environmental Cleanup Responsibilities*  
*Pre-Acquisition Assessments - p. 1*

ITEM	YES	NO	COMMENTS
10.2.5 Do you have historical aerial photographs?			
10.2.6 Have you had interviews with State and local regulators, local media representatives, or the financial community?			
10.2.7 Have you consulted CERCLIS for information pertaining to the site?			
10.3 ON-SITE INSPECTION			
10.3.1 Are there aspects of the background research that needs clarification through on-site inspection?			
10.3.2 Have you checked for waste management practices (e.g. landfills, surface impoundments, incinerators, waste piles, injection wells, USTs)?			
10.3.3 What are the immediately adjacent and surrounding land uses?			
10.3.4 Is there evidence of chemical releases?			
10.3.5 Have the effects of railroad tracks, pipelines, or highways been checked?			

*Pre-Acquisition Assessments - p. 2*  
*On-Site Inspection*

ITEM	YES	NO	COMMENTS
10.4 SAMPLING AND ANALYSIS			
10.4.1 Have you hired a professional consultant and/or laboratory to conduct any soil or groundwater testing?			
10.4.2 Have you participated in the testing decision (e.g. the extent of sampling, types of sampled media)?			
10.4.3 Have you participated with the consultant in interpreting the data?			
10.5 FINAL REPORT			
10.5.1 Does the final report cover all aspects of the pre-acquisition assessment?			
10.5.2 Does it recommend methods, if necessary, for site cleanup?			
10.5.3 Does it cover future recommendations for the site? <ul style="list-style-type: none"> <li>•Waste reduction methods?</li> <li>•Waste management modifications?</li> <li>•Further sampling and monitoring?</li> </ul>			
10.5.4 Does the report include any cleanup cost estimates?			

ITEM	YES	NO	COMMENTS
10.5.5 Has the report - its data, interpretation and conclusion -been reviewed by peers and outside experts?			
10.5.6 Have you reproduced the report for use in transaction negotiations?			
10.5.7 Does the report document releases for which reporting may be required under Federal or State law?			
10.5.8 Has the report been prepared at the request or under the direction of an attorney for the purpose of rendering advice?			

## 11.0 REFERENCES

1. Cahill, L.B. and Kane, R.W., "Environmental Audits," 6th Edition, Government Institute Inc., Rockville, MD, 1989
2. U.S. Air Force, "Environmental Compliance Assessment and Management Project (ECAMP); Guidance Manual," Bolling Air Force Base, Washington, D.C., 1986
3. U.S. Department of Energy "The Environmental Survey Manual: Office of Environmental Audit, Washington, D.C., 1987
4. U.S. Environmental Protection Agency, "NEIC Multi-Media Compliance Audit Inspection Procedures: National Enforcement Investigation Center, Denver, CO, March, 1989
5. U.S. Environmental Protection Agency, "The EPA Manual for Waste Minimization Opportunity Assessment," EPA 600/2-88-025 Cincinnati, OH
6. Greeno, J.L., "Environmental Auditing, Fundamental and Techniques," 2nd Edition, Center for Environmental Assurance, Authur D. Little, Inc., 1987
7. Greeno, J.L., "The Environmental, Health and Safety Auditor's Handbook," Center of Environmental Assurance, Authur D. Little Inc.
8. Freeman, H.M., "Hazardous Waste Minimization" McGraw-Hill, New York, New York, 1990
9. Higgins, T.E., "Hazardous Waste Minimization Handbook" 3rd Edition, Lewis Publisher, 1990
10. McGaw, D.C., "Environmental Auditing and Compliance Manual; Environmental Resource Center, North Carolina, 1990
11. U.S. Department of the Navy "Environmental and Natural Resources Program Manual OPNAVINST-5090.1A," Office of Chief of Naval Operations, Washington, D.C., 1990
12. Blumenfeld, M.C. "Conducting an Environmental Audit: Executive Enterprises Publications Co., New York, New York, 1991
13. Truitt, T.H. "Environmental Audit Handbook Basic Prinaples of Environmental Compliance Auditing: Executive Enterprises Publications Co., New York, New York, 1983

## 12.0 DEFINITION OF TERMS AND ACRONYMS

BACT	Best Available Control Technology
BMP	Best Management Practices
BMR	Baseline Monitoring Records
BTU	British Thermal Unit
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Responsibility and Cleanup Liability Act
CFR	Code of Federal Regulations
COD	Certificate of Destruction
CWA	Clean Water Act
DMR	Discharge Monitoring Records
DOD	Department of Defense
DOT	Department of Transportation
ECRA	Environmental Cleanup Responsibility Act
EHS	Extremely Hazardous Substance
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right to Know
FIFRA	Federal Insecticide, Fungicide and Rodenticide Act
FR	Federal Register
HRS	Hazard Ranking System
LAER	Lowest Achievable Emission Rate
LEPC	Local Emergency Planning Commission
MSDS	Material Safety Data Sheet
NAAQS	National Ambient Air Quality Standard
NESHAP	National Emission Standard for Hazardous Air Pollutants
NOV	Notice of Violation
NOX	Nitrogen Oxides
NPDES	National Pollution Discharge Elimination System
NPL	National Priority List
NRC	National Response Center
NSPS	New Source Performance Standard
NSRP	National Shipbuilding Research Program
OSHA	Occupational Safety and Health Administration
PA	Preliminary Assessment
PCB	Polychlorinated biphenyl
POTW	Public Owned Treatment Works
RACM	Regulated Asbestos Containing Material
RACT	Reasonable Available Control Technology
RCRA	Resource Conservation and Recovery Act
RMPP	Risk Management Prevention Plan
RQ	Reportable Quantity
SARA	Superfund Amendments and Reauthorization Act
SERC	State Emergency Response Commission
SI	Site Inspection
SIP	State Implementation Plan
SPCC	Spill Prevention Countermeasure Control Plan
SPDES	State Pollution Discharge Elimination System
SQG	Small Quantity Generator



TBT Tributyltin  
TCLP Toxicity Characteristic Leaching Procedure  
TPQ Threshold Planning Quantities  
TSCA Toxic Substance Control Act  
TSDF Treatment Storage Disposal Facility  
UST Underground Storage Tanks  
WSR Waste Shipment Records

## APPENDIX A

### COMPREHENSIVE TRANSPORTER AND TSDF AUDIT

Generators of hazardous waste that ship their waste off-site for treatment and disposal have a duty under RCRA to select a transporter and a permitted treatment, storage or disposal facility (TSDF). In addition, the generator must ensure that the waste reaches the designated TSDF. Generators, however, always remain liable under CERCLA if wastes are spilled, improperly disposed of or if the waste disposal facility becomes a Superfund site. Because of this potential liability generators may want to avoid potential liability by auditing both the transporter and the TSDF to assure their practices are environmentally sound. A contractor that passes the audit satisfactorily has already demonstrated his ability to comply with applicable laws and regulations and to perform his services in a professional and responsible manner. Periodic follow-up audits of the contractor are necessary to assure that no significant change has occurred that might expose the company to greater risk. A guideline of follow-up information to obtain periodically from a transporter and TSDF would include

- Change in ownership,
- Change in key management personnel,
- Change or additions in the type of operations and activities in which the contractor engages,
- Change in quality of service,
- Change in financial condition, and
- Contractor having regulatory problems.

Informal contact with Federal, State and local regulatory agencies is a method to obtain unofficial information on problems that contractors are having with the regulatory agencies.

## APPENDIX A-1

### TRANSPORTER AUDIT

#### PART I COMPANY IDENTIFICATION, OWNERSHIP AND HISTORY

1. Company Name and Address Identify other branches or divisions of the company operating at other locations under the same or different name. This audit should encompass the entire company, not just the branch or division that performs the work

2. Affiliates, Subdivisions, other Businesses: Give complete listing of other businesses that are affiliated with the transporter. This information will alert you to a potential conflict of interest or liability situations. Identify if other affiliates may be commingling hazardous and nonhazardous waste.

3. Description of Operation Is the transporter involved in other types of transportation other than hazardous waste? Does this other operation have an effect on his hazardous waste-hauling operation?

4. Service Area Where does the company conduct its service and in what States does it have permits? Will it have difficulty transporting waste to a TSDF?

5. Principles of Company Who are the owners and officers of the company including silent owners?

6. Affiliation of Principles: Identify potential problems with a conflict of interest or prior history. Does the principle have an affiliation with a TSDF? Will he only transport his waste to this TSDF?

7. Other Management Personnel Who are the key contacts besides owners and officers? Who makes the decisions or answers questions?

8. Company History How did the company get started and what is the history of its hazardous waste transportation operation? Try to determine if hazardous waste transportation is the main business or just a sideline of company's overall operation.

9. Applicable Regulatory Agencies List all Federal, State and local regulatory agencies which have authority over company's activities. This will be used to verify compliance history of company.

10. Compliance History Are there any past compliance problems with regulatory agencies? Verify information with States and EPA Regional offices where the company has its operations.

11. Applicable Permits: All transporters are required to obtain permits for States through which they travel and keep those permits current. You may want to obtain copies of these permits from them or the State agencies. Be sure to note effective dates. In addition to State permits, transporters must hold Interstate Commerce Commission (ICC) permits for interstate travel.

## PART II COMPANY OPERATION

12. Condition and Ownership of Vehicles: Vehicles used by transporters should be inspected by the generator to determine their general condition. This will indicate the company commitment to quality service, professionalism and financial condition. Are the vehicles owned or leased? Types and numbers of vehicles used for transportation. Number of flatbeds (40 drum capacity); stakebed; vacuum trucks (100 barrel and bobtail) (mild steel and stainless); roll-offs (10,20, and 40 yards) (covered, lined, or unlined).

13. Vehicle Maintenance and Inspection Program Inspect maintenance records of company's vehicles to determine if vehicles are on a regular service schedule. Also examine vehicle inspection record done by driver.

14. Driver Training Review company's driver-training program. It is required by law that drivers receive training in hazardous waste transportation. They should know emergency response procedures and the use of emergency equipment if carried aboard vehicle. Who gives the training? What are the trainers credentials and how often are training updates given? What is the on the road experience of the drivers employed by company.

15. Drivers Log: Ask to look at driver logs to determine if drivers are within required number of driving hours per given period of travel.

16. Emergency Response Program and Equipment: What emergency equipment is available on vehicles, such as spill boom, spill pads, neutralization material, personal protective equipment, communication equipment, hazardous material guidebooks, warning signs or devices, first-aid kits and fire extinguishers for material being hauled. Do drivers know how to use this equipment? Does the company have practice drills in addition to classroom training?

17. Storage and Parking Procedures: Where are the company vehicles kept? With what is parking area surfaced? Are they parked off the road, secured and vandal-proof? What is the company's policy on parking vehicles on overnight trips? Are adequate security measure taken? Are drivers free to leave vehicles overnight in parking lots or other sites out of their view?

18. Cleaning, Flushing and Discharge How frequently are the vehicles cleaned? On tank trucks how is flushing performed and is it in accordance with regulations governing discharge and disposal? (Tanks should be flushed after every load). If the tanks are discharged on company premises does the company have discharge permit? If not discharged at facility, at what facility are tanks flushed? How are contaminant levels determined in discharges (40 CFR 263.30)?

19. Safety and First Aid Program: Does the company have a safety program? Are employees required to have a regular physical examination? Is there a medical surveillance program to monitor exposure to hazardous material? Is the working environment inspected for conditions affecting safety and health?

20. Accident History Ask for accident history of the vehicles and also workplace accidents? What corrective actions were taken to reduce accidents?

21. Condition of Containers Inspect containers for signs of wear or corrosion and other damage from transportation of hazardous waste.

22. Labeling and Placarding Do containers have proper labels with contents? Do vehicles have proper placement of placards on vehicles? (DOT regulations).

23. Recordkeeping: Does the company have a good system of documentation (manifest system)? Are written records kept on employees physical condition, safety training, inspection, permits and other federal, state and local regulatory requirements? (40 CFR 263.20)

24. Employee Attitude and Morale What is your overall impression of the working atmosphere? Are employees friendly and professional in manner and appearance. Speak directly with employees about their jobs. What is general housekeeping at the site?

### PART III: FINANCIAL CONDITION

25. Insurance Ask for a copy of insurance certificates for proof of adequate coverage to cover activities of company? What is the coverage amount? (i.e. dollar value for each category). Does coverage meet requirements of each state in which company vehicles travel? Ask about company ability to maintain adequate insurance coverage over the long term?

26. Extraordinary Business Risk Is the company involved in operations which constitute extraordinary risk such as handling and disposal of explosives or decontamination semices.

27. Past, Current, and Pending Litigation Have any lawsuits been filed against the company in the past or are there current or pending lawsuits?

28. Financial Review Request financial statement from company and have reviewed by knowledgeable financial analyst to determine financial strength or weakness of company. Use Dunn & Bradstreet report as an additional source.

### PART IV: REFERENCES

29. Clients References Request a list of past and current clients. Do a random phone check of names on list to determine overall quality of service, hazardous material incidents or safety-related incidents. Be sure to call ones which are not on the list of which you are aware.

30. Regulatory Agency References: When verifying the status of permits and regulatory compliance history solicit comments "off the record" from agencies which have dealt with the company.

31. Neighborhood References: During your visit observe adjoining property and contact owners or occupants of these properties.

### PART V: EVALUATION

32. Rating Based on the information furnished by the company and other sources, you are now ready to evaluate the Transporter. The evaluation will be somewhat subjective, however, it will also be based on quantifiable facts combined with firsthand observations of the company's workplace, equipment and procedures. Your final goal in this evaluation process is to rate the Transporter as either acceptable or un acceptable.

## HAZARDOUS WASTE TRANSPORTER AUDIT CHECKLIST

TRANSPORTER NAME:

DATE:

EPA ID NO:

STATE HAULER NO:

AUDITOR:

### PART I: COMPANY IDENTITY OWNERSHIP AND HISTORY

1. NAME AND ADDRESS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

PHONE: \_\_\_\_\_  
\_\_\_\_\_

2. AFFILIATE, SUBSIDIARIES, OTHER BUSINESSES (NAME AND LOCATION OF PARENT IF ANY): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SUBSIDIARIES AND AFFILIATES: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. DESCRIPTION OF OPERATION: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. SERVICE AREA: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. PRINCIPALS OF COMPANY: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. AFFILIATION OF PRINCIPALS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

7. OTHER MANAGEMENT PERSONNEL: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

8. COMPANY HISTORY: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

9. COMPLIANCE HISTORY: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

10. APPLICABLE REGULATORY AGENCIES: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

11. APPLICABLE PERMITS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## PART II: COMPANY OPERATIONS

12. CONDITION AND OWNERSHIP OF VEHICLES: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

13. VEHICLES MAINTENANCE AND INSPECTION PROGRAM: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

14. DRIVER TRAINING: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

15. DRIVER LOGS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

16. EMERGENCY RESPONSE PROGRAM AND EQUIPMENT: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



17. STORAGE AND PARKING PROCEDURES: \_\_\_\_\_

---

---

---

18. CLEANING, FLUSHING, AND DISCHARGE: \_\_\_\_\_

---

---

---

19. SAFETY AND FIRST AID PROGRAM: \_\_\_\_\_

---

---

---

20. ACCIDENT HISTORY: \_\_\_\_\_

---

---

---

21. CONDITION OF CONTAINERS: \_\_\_\_\_

---

---

---

22. LABELING AND PLACARDING: \_\_\_\_\_

---

---

---

23. RECORDKEEPING: \_\_\_\_\_

---

---

---

24. EMPLOYEE ATTITUDE AND MORALE: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### PART III: FINANCIAL CONDITION

25. INSURANCE: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

26. EXTRAORDINARY BUSINESS RISK OR "ATTRACTIVE NUISANCES": \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

27. PAST, CURRENT, AND PENDING LITIGATION: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

28. FINANCIAL REVIEW: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### PART IV: REFERENCES

29. CLIENT REFERENCES: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

30. REGULATORY AGENCY REFERENCES: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

31. NEIGHBORHOOD REFERENCES: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Use supplemental sheets to further describe any categories.

## **PART V: EVALUATION**

32. RATING: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## APPENDIX A-2

### TREATMENT, STORAGE AND DISPOSAL FACILITY (TSDF) AUDIT

#### PART I: COMPANY IDENTIFICATION, OWNERSHIP AND HISTORY

1. **Company Name and Address** List the contractor's identity and any other branches or divisions of the company that may exist at other locations or under other names. This audit should encompass the entire company, not just the branch or division that performs the work.

2. **Parent Company Affiliates, Subsidiaries** Identify the parent company of the TSDF or other affiliated companies. By knowing the contractors's full corporate identity and network operation you can identify not only compliance problems, but also potential conflict-of-interest situations which may not be in your best interest.

3. **Identity of Principals:** Who are the owners and officers of the company including any affiliations they may have with other companies. The principals may be liable for the company's operations if anything goes wrong.

4. **Other Management Personnel** Who are the key contacts besides owners and officers? Who makes decisions or answers questions?

5. **Nature of Service and Treatment** What hazardous waste related services does the TSDF perform and what does it not perform? What type of processes are used? The TSDF should be matched as closely as possible to specific needs of your facility

6. **Company History** How did the company get started and what is the history of its hazardous waste operations? Try to determine if hazardous waste is the main business or a sideline of the company's overall operation.

7. **Site History** What is the past history in terms of any previous hazardous waste operations at the site.

8. **Applicable Regulatory Agencies** List all Federal, State and local regulatory agencies which have authority over the company's activities. This will be used to verify the compliance history of the company

9. **Compliance History** Are there any past compliance problems with regulatory agencies? Verify information with the States and EPA Regional offices where the Company has its operations.

10. **Permits Held and Limitations:** What are the activities allowed under the company's current permits as well as activities and processes not allowed. Is the TSDF permitted to treat or destroy specific wastes? Have any of the TSDF's permits been previously suspended or revoked.

## PART II: SITE CONDITIONS

11. Overall Site Conditions: Inspect the entire site to determine if any significant hazards or risks are apparent. Inspect condition of the building, piping system, storage tanks, etc. Do any of these facilities appear to present a hazard? Does the waste storage and treatment area have secondary containment? This audit is your chance to look into unusual places (i.e. behind fences or buildings) or “slam every door and kick every tire.”

12. Type of Waste On-Site What types of waste are normally handled and stored by the facility on-site? How does this compare with the activities allowed by the company's permits? How long are wastes usually held on-site prior to destruction/disposal?

13. Groundwater Hazards: What is the location of the nearest groundwater aquifer or well? Does the facility have a detection monitoring network in place? What is the depth to groundwater table? What is subsurface strata? Could a major release or spill affect the nearby groundwater. Has the company installed monitoring wells and are they sampled regularly? Who conducts the sampling? What are the parameters of analysis?

14. Surface-Water Hazards Are there any nearby surface bodies of water? Would they be affected in the event of a major release or spill? Is surface water protected? Does rainwater affect the area? Is the site designed to collect and segregate runoff? What is yearly rainfall? Does the facility lie in the floodplain of a 100 year storm? Could rainfall wash small quantities of hazardous chemicals into surface water bodies or affect groundwater (40 CFR 264.18)

15. Seismic Potential What is the history of earthquakes in the area of the facility. What are the potential hazards if an earthquake occurs? Are the buildings and facilities designed to withstand an earthquake (Review 40 CFR 264.18 on TSDF location standards)?

16. Adjacent Property What are the industries or other types of property located adjacent to the facility and what is the potential impact on those properties from a release of hazardous material. Are protective measures and controls in place to protect neighboring properties. Are the neighboring property owners involved in emergency planning? What are the sensitive “receptors” (schools, elderly people, etc.)?

## PART III: COMPANY OPERATION

17. Types of Storage Are waste materials routinely stored for significant periods of time? Where and how are they stored (inside or outdoors)? If storage is outside, is there a system to prevent leakage? Are drums stacked? (Review RCRA rules on storage of waste, 40 CFR Parts 264 or 265 Subpart I).

18. Tank Systems Do the facility's hazardous waste storage or treatment tanks satisfy EPA technological requirements under 40 CFR Parts 264 or 265 Subpart J?

19. Segregation of Materials What techniques, devices and/or designs are used to keep incompatible materials segregated from each other? What is the potential for dangerous reactions resulting from contact of incompatible chemicals?

20. Materials Handling What methods are used to handle hazardous materials within processing and storage areas? How are containers removed from trucks?

21. Security and Communications Is the facility protected from unauthorized entry and vandalism? Is there a 24-hour security system? Is there an adequate communication system to notify on-site personnel of an emergency? (40 CFR 264.14 and 264.30).

22. Waste Analysis Plan and Capability Make sure that the facility has a written waste analysis plan and it is at the facility. This plan must satisfy the RCRA requirement under 40 CFR 264.13. How does the TSDF check the waste it receives? Are wastes subject to laboratory analysis? Is the analysis performed on-site or off-site? Who does the analysis?

23. Approval/Acceptance/Rejection criteria How does the facility approve the acceptance of your material prior to shipment and at the time of arrival, and what criteria would result in rejection of your waste and require it to be shipped back to you?

24. COD and Waste-Tracking Systems Does the facility generate a Certificate of Destruction (COD) when materials are treated or destroyed or when materials are received? What procedures are used to ensure that wastes have been treated and what backup system is in place to guarantee the accuracy of the information.

25. Emissions Monitoring: What are the devices and procedures for the monitoring and recording of emissions and discharges from the stacks and collection tanks? What is the destruction efficiency of the process used? Does the monitoring equipment have alarms if emissions approach critical levels and what procedures are followed when these levels are reached? What is the general wind direction of the facility?

26. Off-Site Disposal Practices: What does the facility do with its own generated waste? (If TSDF is to incinerate your waste make sure that it does not ship it off-site or landfill it). Are its disposal and auditing practices sound and comprehensive? What testing is done to determine if a waste is hazardous or nonhazardous? Who performs the tests? Does the facility produce any by-products that are applied to the land?

#### PART IV SAFETY AND EMERGENCY PROCEDURES

27. Inspection Program What is the frequency and extent of the facility inspection program? What is done when the facility discovers a problem during an inspection? Who is responsible for correcting the problem (40 CFR 264.15)?

28. Accident History-Facility What has been the past incidence of spills or other emergencies? How were they handled? What measures have been taken to prevent similar emergencies in the future?

29. Accident History-Employees What accidents have occurred and what corrective measures have been taken to prevent recurring accidents?

30. Hazard, Safety, and Emergency Training Are new TSDF workers, current workers and emergency response personnel adequately trained under OSHA's 29 CFR Part 1910.120 regulations (24 hours initial training and 8 hours refresher course)? Review documentation on

employee training in hazardous material handling, safety, and emergency response (40 CFR 264.16).

31. Contingency Plan and Equipment Review the facility's written contingency plan, as well as documentation that employees have been trained and drilled in implementing the plan. Do the local fire and police departments have copies of the plan? Are local community-aid departments familiar with the facility and its operations? Does the facility maintain special emergency response equipment, and do its employees know how to use it (40 CFR 264.50)?

32. Emergency Treatment Facility What is the adequacy of the on-site emergency first aid capabilities and facilities? Does the facility have an agreement with nearby hospitals or clinics to respond in an emergency? Are staff members trained in emergency first aid procedures?

33. Handling of Leaks What is done when a leaking container is found? What site authority and/or agencies are notified? Is the generator of leaking material notified? Are notification procedures kept in writing?

34. Automatic Shutoff Devices: If the facility has automated treatment processes, what safety features are incorporated into the equipment for emergency shutdown? Check to see that manual emergency shutdown devices are accessible to equipment operators.

35. Rupture Prevention Does the facility have equipment that could produce thermal or chemical expansion? If a rupture occurs what would happen to the contents of the vessels or piping? Do control measures and secondary containment exist?

36. Solid or Fluid Discharges: Under a worst case scenario, what measures does the facility take to prevent and control accidental discharges? How would a flammable or reactive chemical discharge be controlled?

37. Recordkeeping Does the company have a good system of documentation (manifest system, recordkeeping and reporting)? Are written records kept on the employees physical condition, safety training, inspections, permits, and other Federal, State and local regulatory requirements (40 CFR 264.70)?

38. Employee Attitude and Morale: What is the overall impression of the working atmosphere? Are employees friendly and professional in manner and appearance? Speak directly with employees about their jobs. What is general housekeeping at the site?

## PART V: FINANCIAL CONDITION

39. Insurance Does the TSDF satisfy the RCRA insurance requirements under 40 CFR 264.147? Does the facility demonstrate financial assurance in the event of bodily injury and/or property damage to third parties, as well as for closure and post-closure care?

40. Extraordinary Business Risks Is the company involved in operations which constitute extraordinary risk such as handling and disposal of explosives or decontamination services?

41. Past, Current, and Pending Litigation Have any lawsuits been filed against the company in the past or are there current or pending lawsuits?

42. Financial Review. Request the most recent financial statement from the company and have reviewed by a knowledgeable financial analyst to determine financial strength or weakness of the company. Use Dun & Bradstreet as a reference source.

## PART VI: REFERENCES

43. Clients References: Request a list of past and current clients. Do a random phone check of names on the list to determine overall quality of service, hazardous material incidents or safety-related incidents. Be sure to Call ones which are not on the list of which you are aware.

44. Regulatory Agency References: When verifying the status of permits and regulatory compliance history, solicit comments “off the record” from agencies which have dealt with the company.

45. Neighborhood References: During your visit observe adjoining property and contact owners or occupants of these properties.

## PART VII: EVALUATION

46. Rating Based on the information furnished by the company and other sources, you are now ready to evaluate the TSDF. The evaluation will be subjective and also based on quantifiable facts combined with firsthand observations of the company’s workplace, equipment and procedures. Your final goal for this evaluation process is to rate the facility as either acceptable or unacceptable.



## TREATMENT, STORAGE, AND DISPOSAL FACILITY CHECKLIST

TSDF NAME:

DATE

EPA ID NO:

STATE HAULER NO:

AUDITOR:

### PART I: COMPANY IDENTITY, OWNERSHIP AND HISTORY

1. NAME AND ADDRESS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

PHONE: \_\_\_\_\_  
\_\_\_\_\_

2. AFFILIATE, SUBSIDIARIES, OTHER BUSINESSES (NAME AND LOCATION OF PARENT IF ANY): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. IDENTITY OF PRINCIPALS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. OTHER MANAGEMENT PERSONNEL: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. NATURE OF SERVICE AND TREATMENT: \_\_\_\_\_

---

---

---

6. COMPANY HISTORY: \_\_\_\_\_

---

---

---

7. SITE HISTORY: \_\_\_\_\_

---

---

---

8. COMPLIANCE HISTORY: \_\_\_\_\_

---

---

---

9. APPLICABLE REGULATORY AGENCIES: \_\_\_\_\_

---

---

---

10. APPLICABLE PERMITS: \_\_\_\_\_

---

---

---

## PART II: SITE CONDITIONS

11. OVERALL SITE CONDITION: \_\_\_\_\_

---

---

---

12. TYPE OF WASTE ON SITE: \_\_\_\_\_

---

---

---

13. GROUND WATER HAZARDS: \_\_\_\_\_

---

---

---

14. SURFACE WATER HAZARDS: \_\_\_\_\_

---

---

---

15. SEISMIC POTENTIAL: \_\_\_\_\_

---

---

---

16. ADJACENT PROPERTY: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

PART III: COMPANY OPERATION

17. TYPES OF STORAGE: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

18. TANK SYSTEM: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

19. SEGREGATION OF MATERIALS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

20. MATERIAL HANDLING: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

21. SECURITY AND COMMUNICATION: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

22. WASTE ANALYSIS PLAN AND CAPABILITY: \_\_\_\_\_

---

---

---

23. APPROVAL/ACCEPTANCE/REJECTION CRITERIA: \_\_\_\_\_

---

---

---

24. COD AND WASTE -TRACKING SYSTEM: \_\_\_\_\_

---

---

---

25. EMISSION MONITORING: \_\_\_\_\_

---

---

---

26. OFF-SITE DISPOSAL PRACTICES: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### PART IV: SAFETY AND EMERGENCY PROCEDURES

27. INSPECTION PROGRAM: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

28. ACCIDENT HISTORY-FACILITY: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

29. ACCIDENT HISTORY-EMPLOYEES: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

30. HAZARD, SAFETY., AND EMERGENCY TRAINING: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

31. CONTINGENCY PLAN AND EQUIPMENT: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

32. EMERGENCY TREATMENT FACILITY: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

33. HANDLING OF LEAKS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

34. AUTOMATIC SHUTOFF DEVICES: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

35. RUPTURE PREVENTION: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

36. SOLID OR FLUID DISCHARGE: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**PART V: FINANCIAL CONDITION**

37. INSURANCE: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

38. EXTRAORDINARY BUSINESS RISIK: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

39. PAST, CURRENT, AND PENDING LITIGATION: \_\_\_\_\_

---

---

---

40. FINANCIAL REVIEW: \_\_\_\_\_

---

---

---

#### PART VI : REFERENCES

41. CLIENTS REFERENCES: \_\_\_\_\_

---

---

---

42. REGULATORY AGENCY REFERENCES: \_\_\_\_\_

---

---

---

43. NEIGHBORHOOD REFERENCES: \_\_\_\_\_

---

---

---

Use supplemental sheets to further describe any categories.



PART VII: EVALUATION

44. RATING: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## NSRP READER RESPONSE CARD

We would appreciate your comments on this report. Please take a few minutes to complete and return this postage-paid card. Thank you.

Name _____	<i>How Did You Receive Report?</i>
Organization _____	<input type="checkbox"/> Mailed directly to you
Phone _____	<input type="checkbox"/> Referred to you by someone else
	<input type="checkbox"/> Did Will You Pass Report On To Someone Else?
<i>Overall Quality of Report</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	<i>In Your Opinion, Is Anything Missing That Would Make This Report Better?</i>
<i>Usefulness to You/Your Organization</i>	<input type="checkbox"/> Yes _____
<input type="checkbox"/> Very Useful <input type="checkbox"/> Moderately Useful	_____
<input type="checkbox"/> Not Applicable	<i>General Comments</i>
<input type="checkbox"/> Used Often <input type="checkbox"/> Used Rarely	_____
	_____

NSRP 0245

## NSRP READER RESPONSE CARD

We would appreciate your comments on this report. Please take a few minutes to complete and return this postage-paid card. Thank you.

Name _____	<i>How Did You Receive Report?</i>
Organization _____	<input type="checkbox"/> Mailed directly to you
Phone _____	<input type="checkbox"/> Referred to you by someone else
	<i>Did/will You Pass Report On To Someone Else?</i>
<i>Overall Quality of Report</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	<i>In Your Opinion, Is Anything Missing That Would Make This Report Better?</i>
<i>Usefulness to You/Your Organization</i>	<input type="checkbox"/> Yes _____
<input type="checkbox"/> Very Useful <input type="checkbox"/> Moderately Useful	_____
<input type="checkbox"/> Not Applicable	<i>General Comments</i>
<input type="checkbox"/> Used Often <input type="checkbox"/> Used Rarely	_____
	_____

NSRP 0245



NO POSTAGE  
NECESSARY  
IF MAILED  
IN THE  
UNITED STATES

**BUSINESS REPLY MAIL**

FIRST CLASS MAIL PERMIT NO. 2635 SAN DIEGO CA

POSTAGE WILL BE PAID BY ADDRESSEE

**NASSCO/NSRP PROGRAM MANAGER**

ATTN: Les Hansen M.S. 20J  
National Steel and Shipbuilding Co.  
P.O. Box 85278  
San Diego, CA 92186-5278



NO POSTAGE  
NECESSARY  
IF MAILED  
IN THE  
UNITED STATES

**BUSINESS REPLY MAIL**

FIRST CLASS MAIL PERMIT NO. 2635 SAN DIEGO CA

POSTAGE WILL BE PAID BY ADDRESSEE

**NASSCO/NSRP PROGRAM MANAGER**

ATTN: Les Hansen M.S. 20J  
National Steel and Shipbuilding Co.  
P.O. Box 85278  
San Diego, CA 92186-5278



Additional copies of this report can be obtained from the National Shipbuilding Research Program Coordinator of the Bibliography of Publications and Microfiche Index. You can call or write to the address or phone number listed below.

NSRP Coordinator  
The University of Michigan  
Transportation Research Institute  
Marine Systems Division  
2901 Baxter Rd.  
Ann Arbor, MI 48109-2150  
Phone: (313) 763-2465  
Fax: (313) 936-1081